

**FIELD INVESTIGATION SUMMARY REPORT, MAY 2012
REMEDIAL INVESTIGATION/FEASIBILITY STUDY (RI/FS) OVERSIGHT
R&H OIL/TROPICANA ENERGY SUPERFUND SITE, SAN ANTONIO, TEXAS**

This Field Investigation Summary Report summarizes activities at the R&H Oil/Tropicana Energy Superfund Site (the Site) on 7, 8, 9, and 10 May 2012. It includes an Introduction followed by discussions of health and safety issues, weather conditions, site activities, and a list of references.

INTRODUCTION

Under the direction of the U.S. Environmental Protection Agency (EPA), EA Engineering, Science, and Technology, Inc. (EA) oversaw ground water investigatory activities conducted by the Potentially Responsible Parties' (PRP) consultant Pastor, Behling, & Wheeler, LLC (PBW).

Participants included:

- Mr. Chris Villarreal, EPA Task Order Monitor
- Mr. Ruben Moya, EPA Drilling Oversight
- Mr. Kent Shewmake, EPA Drilling Oversight
- Ms. Teri McMillan, EA Geologist
- Mr. Jose Flores, EA Field Scientist
- Mr. Tim Nickels, PBW, PRP Environmental Consultant
- Mr. John Brayton, PBW Representative, PRP Environmental Consultant
- Mr. Robert Joiner and crew, Vortex Drilling, Inc., Drilling Services.

EA performed field activities in accordance with the following EPA-approved plans:

- RI/FS Oversight Work Plan (EA 2011a)
- Health and Safety Plan (EA 2011b).

This Field Activity Report reports on the following field activities:

- Drilling, installing, and developing two monitoring wells and two soil gas points
- Soil, gas, and ground water sampling efforts.

HEALTH AND SAFETY

Prior to field activities, a health and safety meeting was conducted each day. The traffic control plan was implemented during the installation of the monitoring wells.

WEATHER CONDITIONS

On 7 May 2012, the temperature ranged from 67 to 91 degrees Fahrenheit (°F), with overcast skies. Winds were light and from the south and east. On 8 May 2012, following an overnight cool front that moved through, the temperature was 63 to 71°F, with scattered thunderstorms producing rain throughout the day and winds out of the north. On 9 May 2012, the temperature was between 61 to 83°F, with cloudy skies and light winds from the north. On 10 May 2012, the temperature ranged from 64 to 77°F, with gusty varied winds and thunderstorms and rain followed by cloudy skies in the afternoon.

SITE ACTIVITIES

Between 7 and 10 May 2012, EA provided oversight on the installation of two monitoring wells and two soil gas points. EA also oversaw the collection of soil vapor samples as well as water sampling for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals. The following paragraphs summarize events noted in the field. More details may be found in the daily field reports in Attachment 1, and in the Field Logbook in Attachment 2. Photographs taken at the site may be found in Attachment 3. A well location map including sample locations may be found in Attachment 4. A copy of the chain-of-custody documentation is in Attachment 5. A summary of the air data as collected by EA and analyzed by the EPA Region 6 Lab in Houston may be found in Attachment 6. The water and soil lab reports provided by the PRP's lab, TestAmerica, may be found in Attachment 7 (only on compact disc [CD]). The water and soil lab reports provided through the EPA Contract Laboratory Program may be found in Attachment 8 (only on CD). A comparison of lab data analysis results between the two labs, listed as Tables 1 through 4, is located in Attachment 9. The Data Evaluation Summary Report is in Attachment 10.

Well Drilling and Soil Boring

EA performed oversight of PBW's installation of two monitoring wells (MW-21 and MW-22) using a Geoprobe[®] to push to the total depth of the boring while collecting soil core samples in acetate sleeves for logging. Utilities were cleared using a jet vac prior to installation. MW-21 was installed on the north side of Fitch Street, east of Somerset Road, between MW-9 and MW-10. MW-22 was installed on the north side of Milvid Avenue, east of Somerset Road, between MW-7 and MW-8. The boring for MW-21 was advanced to a total depth of 23 feet below ground surface (bgs), and for MW-22, the boring was advanced to a total depth of 25 feet bgs. The wells were cased with 2-inch polyvinyl chloride (PVC) flush threaded casing with 15 feet of machine slotted 0.010-inch screen. Filter pack, 10/20 silica sand, was placed to 2 feet above the screen followed by bentonite hole plug to 2-feet bgs. Well vaults and concrete pads were installed. Although the inside surfaces and augers of the Geoprobe[®] were cleaned between borings, the outside surfaces of the Geoprobe[®] rods were not cleaned between borings.

Wells were developed using Watterra tubing, foot valve, and surge block. Wells were developed until field parameters (pH, temperature, Redox, oxygen, specific conductance, and turbidity) stabilized.

PBW also installed two soil gas points (SG-21 and SG-22) using the Geoprobe[®]. SG-21 was installed on the north side of Fitch Street, east of Somerset Road and west of MW-21. SG-22 was installed on the north side of Milvid Avenue, east of Somerset and east of MW-22. The Geoprobe[®] rods were advanced to 5 feet bgs, the soil core was retrieved, and the soil gas implant was installed. The soil gas implant was placed on the bottom of each borehole, contrary to the Sampling and Analysis Plan which specified installation of the implant 6-inches above the base of the borehole.

Sampling – Soil Gas Sampling

Soil gas samples were collected at MW-21 and MW-22. Photo ionization detector (PID) measurements ranged from 23.9 parts per million by volume (ppmv) at 19 to 20 feet bgs to 3,651 ppmv at 11 to 12 feet bgs at MW-21. At MW-22, PID measurements ranged from 0.1 ppmv at 10 to 12.5 feet bgs to 35.4 ppmv at 16-17 feet bgs. The core samples were logged and field screened at various intervals, and three soil samples were collected for lab analysis. EA collected additional soil samples from the field screened intervals for EPA to analyze using their portable laboratory equipment, the HAPSITE Field GC/MS.

Due to the tightness of the clay soil, obtaining vapor samples from SG-21 and SG-22 was difficult. After PBW attempted but failed to collect a sample at SG-21, EA was able to obtain a full 6-liter summa canister sample on SG-21, but could not fill a Tedlar[®] bag. PBW could not purge SG-22, so EA tried and was able to obtain a partial sample until a leak from the top of the summa canister was found. It was noted at this point that a leak also existed at the top of the summa canister used for SG-21. The connection on top of the summa canister was modified, and EA verified that the connection was tight.

EPA originally requested vapor samples from all soil gas points, but following PBW's suggestions that due to the tightness of the soil that only certain soil gas points could be productive, EPA requested only the following soil gas points be sampled: SG-19 – Summa canister (with duplicate) for lab analysis and Tedlar[®] bag for HAPSITE Field GC/MS; and SG-13, SG-16, SG-17, and SG-20 for only a Tedlar[®] bag for HAPSITE Field GC/MS. EA was able to collect all samples except for SG-16 and SG-17 where the soil was too tight.

EA collected a sub-slab vapor sample from SS-2 (in the on-site building), but was unsuccessful in collecting vapor samples from SG-14 (because the soil was too tight) and from SG-15 (because the point was damaged). PBW was unsuccessful in collecting sub-slab vapor samples from SS-2 and SG-14.

No equipment rinsate was collected since all ground water sampling equipment was dedicated (with the exception of the water level indicator).

Sampling – Ground Water

PBW gauged all wells associated with the site, starting with onsite wells that did not contain product, followed by offsite wells, and finishing with onsite wells that were known to have non-aqueous phase liquid.

EA collected and split ground water samples from the following wells for lab analysis of VOCs and EPA HAPSITE Field GC/MS: MW-04 (MW-04 duplicate), MW-09, MW-19, MW-20, MW-21 (MW-21 duplicate), and MW-22. MW-18 was collected for VOCs and EPA HAPSITE Field GC/MS, as well as SVOCs. EA also collected field blanks (FB-1 and FB-2) for lab analysis of VOCs.

PBW purged wells and collected ground water samples using a peristaltic pump. PBW installed new, dedicated sampling tubing in MW-21 and MW-22. Prior to purging, the sample tubing was raised so that the intake was 2 feet above the bottom of the well, and a water level indicator was used to gauge the depth to water during pumping. During purging, the flow rate, parameters, and water levels were measured three times. According to PBW's Standard Operating Procedures included in the Field Sampling Plan (PBW 2010), parameters should be stable prior to sampling. Wells were developed until field parameters stabilized.

EA collected split ground water samples as follows: MW-14, MW-16, MW-17, and MW-18 were sampled for lab analysis of VOCs, SVOCs, and metals.

Split samples were sent to two labs. The samples EA took were shipped via FedEx to the EPA Region 6 Lab in Houston, Texas. The PBW samples were shipped to the private lab TestAmerica, also in Houston, Texas. Copies of the chain-of-custody documentation for both labs are in Attachment 5. The water and soil lab reports provided by the PRP's lab, TestAmerica, may be found in Attachment 7. The water and soil lab reports provided by EA's lab, the EPA Region 6 lab in Houston, may be found in Attachment 8.

EA computed the relative percent difference (RPD) between the EPA lab and the PRP labs split sample results (Table 1 of Attachment 9). Due to significant differences in reporting limits between the EPA and PRP labs, RPDs were only computed on detected results. The RPD was computed using the following formula:

$$\text{RPD} = \frac{\text{Absolute value of difference between results of two laboratories}}{\text{Average of results of two laboratories}} \times 100\%$$

A determination of adequate agreement between the EPA lab and the PRP lab results was conducted by comparing the RPD of each analyte to the maximum acceptable RPD of 50% established in the discussion of Data Quality Objectives in EA's Sampling and Analysis Plan (EA 2011c). The results of this determination are presented in Table 2 of Attachment 9. The table shows that the following three analytes have an RPD greater than 50%:

1. Copper
2. Zinc
3. Phenol.

The high RPD for copper and zinc is due to the inclusion of estimated values below the reporting limit or Contract Required Quantitation Limits and so even though the RPD values do not provide quantification of agreement, there is still a qualitative indication of agreement between the labs. The high RPD for phenol is based on data that is confirmed by multiple analyses in the EPA lab, so it is not clear why there would be a wide variation between PRP data and EPA data for phenol. Both the EPA split samples and PRP samples confirm that the phenol concentrations in ground water are below the TCEQ ground water screening level of 7,300 micrograms per liter ($\mu\text{g/L}$) identified in the PRP QAPP and the EPA tap water RSL of 4,500 $\mu\text{g/L}$.

On the whole, however, the two data sets show acceptable agreement between split sample results. The issue of the phenol RPD is considered in more detail in Attachment 10, Data Evaluation Summary Report.

Field Sampling Plan Deviations

The following is a summary of deviations from the PBW Field Sampling Plan (PBW 2010) noted by EA personnel during oversight of PBW. Additional information can be found in the Daily Field Reports and Field Logbook (Attachments 1 and 2, respectively).

- While PBW usually collects filtered and unfiltered samples for sampling metals, PBW only collected unfiltered samples during this event
- On MW-18, PBW did not collect three consecutive turbidity measurements that were stabilized prior to sampling.

REFERENCES

- EA Engineering, Science, and Technology, Inc. (EA). 2011a. Remedial Investigation / Feasibility Study Oversight Work Plan. R&H Oil/Tropicana Energy Superfund Site. San Antonio, Bexar County, Texas. April.
- EA. 2011b. Health and Safety Plan. R&H Oil/Tropicana Energy Superfund Site. San Antonio, Bexar County, Texas. May.
- EA. 2011c. Sampling and Analysis Plan. R&H Oil/Tropicana Energy Superfund Site. San Antonio, Bexar County, Texas. June.
- Pastor, Behling & Wheeler, LLC. 2010. Field Sampling Plan. R&H Oil/Tropicana Energy Superfund Site. San Antonio, Bexar County, Texas. September.

ATTACHMENT 1
DAILY FIELD REPORTS

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: R&H Oil/Tropicana Energy Site, San Antonio, Texas			
Date: 05/07/12	Shift Beginning: 7:00 hours		Shift Ending: 18:30 hours
RAC II Contract No.: EP-W-06-004		Task Order No.: 0074	
EPA Region 6 TOM: Chris Villarreal		Project Manager: Ted Telisak	
Design Manager: N/A		Site Geologist: Teri McMillan	
Design Engineer: N/A		Site Engineer: N/A	
Personnel on site	Name	Affiliation	Reason for being on site
EA:	Teri McMillan Jose Flores	EA	Drilling Oversight
PRP Contractors:	Robert Joiner And Crew	Vortex	Driller
Other:	Chris Villarreal Ruben Moya Kent Shewmake Tim Nickels Don	EPA EPA EPA PBW PBW	Drilling Oversight Drilling Oversight Drilling Oversight PRP Environmental Consultant PRP Environmental Consultant
Work Performed			
<p>Pastor, Behling & Wheeler, LLC (PBW) is the environmental consultant that is conducting the remedial investigation field activities. EA is providing oversight of field activities on behalf of EPA.</p> <p>EA oversaw PBW as they installed two monitoring wells (MW-21 and MW-22) and two soil gas points (SG-21 and SG-22) using a Geoprobe®. Prior to field activities, a health and safety meeting was conducted, the traffic plan was implemented, asphalt was cut, and utilities cleared by a jet vac.</p> <p>Wells were installed by first pushing Geoprobe® rods to the total depth of the boring and collecting soil core in acetate sleeves. The core samples were logged, field screened at various intervals and three soil samples were collected for laboratory analysis. EA collected soil samples from field screened intervals for EPA to analyze using their mobile lab. After soil core samples were collected, then 6-inch outside diameter augers were attached to the Geoprobe® and borings were advanced to a total depth of 23 feet below ground surface (bgs) for MW-21 and 25 feet bgs for MW-22. The augers were removed and well casing was placed in the boreholes. Well casing consisted of 2-inch PVC flush threaded casing with 15 feet of machine slotted 0.010-inch screen. Filter pack, 10/20 silica sand, was placed to two feet above the screen followed by bentonite hole plug to 2-feet bgs. Well vaults were then placed over the wells and the vaults were set in concrete pads.</p> <p>It should be noted the outside surfaces of the Geoprobe® rods were not cleaned after use at well MW-21 prior to use at well MW-22. The insides of the rods were cleaned and the augers were cleaned after use at well MW-21 and prior to use at well MW-22.</p> <p>Soil samples collected and field screened from boring MW-21 had PID measurements that ranged from 23.8 ppmv at 19-20 feet bgs to 3,651 ppmv at 11 to 12 feet bgs. PID measurements from boring MW-22 ranged from 0.1 ppmv at 10 to 12.5 feet bgs to 35.4 ppmv at 16 to 17 feet bgs.</p> <p>The soil gas points were installed using the Geoprobe®. The Geoprobe® rods were advanced to 5-feet bgs, soil core retrieved, and the soil gas implant installed. The implant was not installed as outlined in PBW's Sampling and Analysis Plan (SAP), September 2010. The soil gas implant was not placed 6-inches above the base of the borehole. Instead the probe was placed on the bottom of the borehole.</p> <p>At the end of the day, EPA provided EA with a list of monitoring wells where split groundwater samples</p>			

DAILY FIELD ACTIVITIES SUMMARY REPORT
<p>should be collected. In addition, EPA requested that vapor samples be collected at five locations. Upon discussion with PBW it was noted that two of the monitoring wells on the list were NAPL wells and they would not be sampled. EPA was contacted and the NAPL wells were removed from the sampling list and two wells were substituted.</p> <p>EA went to FedEx to retrieve summa canisters that were shipped from the EPA Laboratory.</p>
Anticipated Activities for the Following Day
<p>PBW will develop monitoring wells and collect vapor samples from soil gas points, SG-21 and SG-22. EA will provide oversight, collect vapor samples from SG-21 and SG-22 and possibly three additional soil gas points.</p>
Report prepared by (name and date)
Teri McMillan 5/7/12

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: R&H Oil/Tropicana Energy Site, San Antonio, Texas			
Date: 05/08/12	Shift Beginning: 9:30 hours		Shift Ending: 18:30 hours
RAC II Contract No.: EP-W-06-004		Task Order No.: 0074	
EPA Region 6 TOM: Chris Villarreal		Project Manager: Ted Telisak	
Design Manager: N/A		Site Geologist: Teri McMillan	
Design Engineer: N/A		Site Engineer: N/A	
Personnel on site	Name	Affiliation	Reason for being on site
EA:	Teri McMillan Jose Flores	EA	Development and Sampling Oversight
Subcontractors:	None		
Other:	Tim Nickels John Brayton	PBW PBW	Environmental Consultant Environmental Consultant
Work Performed			
<p>Pastor, Behling & Wheeler, LLC (PBW) is the environmental consultant that is conducting the remedial investigation field activities. EA is providing oversight of field activities on behalf of EPA.</p> <p>Weather today consisted of heavy rain showers from 1030 to approximately 1300, when rain showers lightened. EA oversaw PBW as they developed well MW-21. Well MW-22 was developed by PBW while EA was collecting soil vapor samples. Wells were developed using Watterra tubing, foot valve and surge block. Wells were developed until field parameters stabilized.</p> <p>Once rain showers lightened at 1345, vapor sampling began. PBW began by attempting to obtain a vapor sample and duplicate from SG-21. During drilling activities conducted the previous day, it was noted that soil collected from SG-21 consisted of clay and appeared very tight. As a result, PBW had difficulty purging the vapor tubing at SG-21. The summa canister (1 liter) used by PBW to sample SG-21 had an initial vacuum of 29 inches Hg, after 20 minutes connected to soil gas point SG-21 it had a final vacuum of 22 inches of Hg. EA attempted to obtain a vapor sample from SG-21. The summa canister (6 liter) filled, but EA could not fully fill a tedlar bag. PBW then attempted to obtain a vapor sample from SG-22. PBW could not purge the soil gas point, and the summa canister did not change from its initial measurement after approximately 15 minutes attached to SG-22. EA then tried to obtain a vapor sample from SG-22. The summa canister began to fill; however, it was noted that there appeared to be a leak from the connection at the top of the summa canister. EA then tried to fill a tedlar bag from SG-22, but was unsuccessful. Upon assessing the canister connections it appeared that there may have been a leak at the connection on top of the summa canister used at SG-21, as well. The connection on top of the summa canister was modified, and EA verified that the connection was tight. A sub-slab vapor sample was then obtained from SS- 2 located in the on-site building. EA tried to obtain a vapor sample from SG-14; however, the soil was too tight and no sample could be collected. A vapor sample was to be collected from SG-15; however the point was damaged and no sample could be collected.</p> <p>EA called Chris Villarreal to update him.</p>			
Anticipated Activities for the Following Day			
PBW will gauge all wells, and begin ground water sampling. EA will split ground water samples from ten select monitoring wells. Possibly collect vapor samples from MW-21 and MW-22.			
Report prepared by (name and date)			
Teri McMillan 5/8/12			

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: R&H Oil/Tropicana Energy Site, San Antonio, Texas			
Date: 05/09/12	Shift Beginning: 7:00 hours		Shift Ending: 19:29 hours
RAC II Contract No.: EP-W-06-004			Task Order No.: 0074
EPA Region 6 TOM: Chris Villarreal			Project Manager: Ted Telisak
Design Manager: N/A			Site Geologist: Teri McMillan
Design Engineer: N/A			Site Engineer: N/A
Personnel on site	Name	Affiliation	Reason for being on site
EA:	Teri McMillan Jose Flores	EA	Sampling Oversight
Subcontractors:	None		
Other:	Tim Nickels John Brayton Chris Villarreal Ruben Moya	PBW PBW EPA EPA	Environmental Consultant Environmental Consultant Collect Samples Collect Samples
Work Performed			
<p>Pastor, Behling & Wheeler, LLC (PBW) is the environmental consultant that is conducting the remedial investigation field activities. EA is providing oversight of field activities and splitting samples on behalf of EPA.</p> <p>EA oversaw PBW gauging water levels and product levels in all wells associated with the Site. PBW gauged on-site wells that did not contain product first, then moved off-site and gauged all off-site wells. Then PBW gauged all on-site wells that had NAPL.</p> <p>EA collected split ground water samples from the following wells:</p> <p>MW-04 – collected samples for laboratory analysis of volatile organic compounds (VOCs) and EPA HAPSITE Field GC/MS – duplicate was collected</p> <p>MW-20 – collected samples for laboratory analysis of VOCs and HAPSITE Field GC/MS</p> <p>MW-09– collected samples for laboratory analysis of VOCs and HAPSITE Field GC/MS</p> <p>MW-21– collected samples for laboratory analysis of VOCs and HAPSITE Field GC/MS</p> <p>MW-22 – collected samples for laboratory analysis of VOCs and HAPSITE Field GC/MS</p> <p>MW-18– collected samples for laboratory analysis of VOCs, semi-volatile organic compounds (SVOCs), metals and HAPSITE Field GC/MS</p> <p>In addition, EA collected a field blank - FB-1 for laboratory analysis of VOCs.</p> <p>PBW purged wells and collected ground water samples using a peristaltic pump, and dedicated tubing that was previously installed in the wells. New sampling tubing was installed in the two new wells MW-21 and MW-22. Prior to purging, the sample tubing is pulled up so that the intake is 2 feet above the bottom of well. All equipment (peristaltic pump, flow through cell, and meters) are placed on the floor inside the PBW pickup. A water level indicator is used to gauge the depth to water during pumping. During purging the flow rate, parameters (pH, specific conductance, temperature, Redox, oxygen, and turbidity) and water levels are measured three times. The first reading is taken approximately 10 minutes from initiating pumping. According to PBW’s SOP, parameters should be stable prior to sampling.</p> <p>The following are deviations from the PBW Sampling and Analysis Plan (SAP) September 2010:</p> <p>PBW was going to use a filter when sampling metals. EA reminded them that the letter from EPA said filters could be used but they were to collect an unfiltered sample as well. John Brayton with PBW, called</p>			

DAILY FIELD ACTIVITIES SUMMARY REPORT

Tim Nickels to confirm this. Tim confirmed that the samples should be collected unfiltered and that they usually collect both unfiltered and filtered. This time they will only collect unfiltered.

On well MW-18, PBW did not collect three consecutive turbidity measurements that were within +/- 10 percent (or less than 10 NTUs) prior to sampling. This was noted in EA's field notes and EA planned to inform the TOM the next day.

Chris Villarreal wanted EA to collect additional vapor samples from soil gas points. Tim Nickels checked all on-site soil gas points to see if soil gas could be pulled through them. Tim listed which wells he thought EA could sample and the wells that we might be able to sample. Chris was contacted and he selected the following soil gas points to sample:

SG-19 – Summa canister, duplicate for laboratory analysis and tedlar bag for HAPSITE Field GC/MS

SG-13 – Tedlar bag for HAPSITE Field GC/MS

SG-16 – Tedlar bag for HAPSITE Field GC/MS

SG-17 – Tedlar bag for HAPSITE Field GC/MS

SG-20 – Tedlar bag for HAPSITE Field GC/MS

EA was able to collect soil gas samples from SG-19, SG-13 and SG-20. Soil gas points SG-16 and SG-17 were too tight and no sample could be collected.

It was also discussed with Chris whether we needed to collect an equipment rinsate. It was decided that no equipment rinsate would be collected since all ground water sampling equipment was dedicated, except for the water level indicator.

Anticipated Activities for the Following Day

EA will split ground water samples from remaining four select monitoring wells.

Report prepared by (name and date)

Teri McMillan 5/9/12

DAILY FIELD ACTIVITIES SUMMARY REPORT			
PROJECT NAME: R&H Oil/Tropicana Energy Site, San Antonio, Texas			
Date: 05/10/12	Shift Beginning: 6:58 hours		Shift Ending: 20:30 hours
RAC II Contract No.: EP-W-06-004		Task Order No.: 0074	
EPA Region 6 TOM: Chris Villarreal		Project Manager: Ted Telisak	
Design Manager: N/A		Site Geologist: Teri McMillan	
Design Engineer: N/A		Site Engineer: N/A	
Personnel on site	Name	Affiliation	Reason for being on site
EA:	Teri McMillan Jose Flores	EA	Sampling Oversight
Subcontractors:	None		
Other:	John Brayton	PBW	Environmental Consultant
Work Performed			
<p>Pastor, Behling & Wheeler, LLC (PBW) is the environmental consultant that is conducting the remedial investigation field activities. EA is providing oversight of field activities and splitting samples on behalf of EPA.</p> <p>Today it rained – ground water samples were collected under a canopy.</p> <p>EA collected split ground water samples from the following wells:</p> <p>MW-16 – collected samples for laboratory analysis of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals</p> <p>MW-14 – collected samples for laboratory analysis of VOCs, SVOCs, and metals</p> <p>MW-19– collected samples for laboratory analysis of VOCs</p> <p>MW-17– collected samples for laboratory analysis of VOCs, SVOCs, and metals</p> <p>In addition, EA collected a field blank - FB-2 for laboratory analysis of VOCs.</p> <p>PBW purged wells and collected ground water samples using a peristaltic pump, and dedicated tubing that was previously installed in the wells. Prior to purging, the sample tubing is pulled up so that the intake is 2 feet above the bottom of well. All equipment (peristaltic pump, flow through cell, and meters) are placed on the floor inside the PBW pickup. A water level indicator or interface probe was used to gauge the depth to water during pumping. During purging the flow rate, parameters (pH, specific conductance, temperature, Redox, oxygen, and turbidity) and water levels are measured three times. The first reading is taken approximately 10 minutes from initiating pumping.</p> <p>EA was off-site at 1310.</p> <p>EA then prepared samples for shipping and shipped them to the CLP lab via FedEx.</p>			
Anticipated Activities for the Following Day			
Ship vapor samples to EPA Laboratory and travel home.			
Report prepared by (name and date)			
Teri McMillan 5/10/12			

ATTACHMENT 2
FIELD LOGBOOKS



Project / Client R.H.O.I. / Tropicana Energy Superfund Site
Oversight - Monitor Well and Soil Vapor Point Drilling.

0650 Left hotel for R&H Oil / Tropicana Energy Superfund Site.

0710 EA personnel on-site Jose Flores (JF) and Teri McMillan (TM).

0715 TM gave EHAAS meeting.
Partly Cloudy, Cool, 80°F

0735 Tim Nickles with Pastor, Behling & Wheeler, LLC (PBW).

0750 Offsite to polypore sample containers.

0738 Stopped for fuel and ice.

0855 Arrived back on site.

0900 Vortex Drilling already in progress of drilling MW-21. Located across from residence (2120 Fitch St).

TM with EA over seeing the drilling of the wells. TM will add additional information regarding the recovery of soil & installation of monitoring wells.

Soil grab samples collected from the following depths (bgs). Cleared up a pint of knife.

- 6'-7' Submitted by PRP to lab (4'-5')
- 9'-10'
- 11'-12' Submitted to PRP to lab

Jose Flores 5-07-2012

Location Bexar Co., San Antonio, TX Date 5-07-2012
 Project / Client REHO:1/Tropicana Energy Superfund Site
Oversight - Monitor Well and Soil Vapor Point Drilling

15'-15' Submitted by PRP for lab sample.
 16'-17'
 19'-20'
 1015 Well bore for MW-21 completed. Drillers will leave bore hole open until casing arrives later this morning.
 1016 Setup for SG-21
 1017 Drillers started breaking asphalt (approx.) 5' (N) of MW-21 and 3' (S) of main. for SG-21 - Soil gas port location. Collected field screen.
 1026 Drillers hammering down TO - 5', 4'-5' sand, installed 5 stainless steel gas port and tubing. 1' of sand around port.
 1043 Soil gas port SG-21 installed.
 1043 Drillers have well casing for MW-21
 1045 Drillers set casing.
 1046 Started pouring sand and bentonite.
 1052 Casing set. TM has additional information regarding well construction.
 1126 PBW breaking for lunch.
 1128 EA breaking off site for lunch.
 1228 GA arrived back on site.

Joe Jorg 5-07-2012

Location Bexar Co., San Antonio, TX Date 5-07-2012
 Project / Client REHO:1/Tropicana Energy Superfund Site
Oversight - Monitor Well and Soil Vapor Point Drilling

Drillers setting up on MW-22 on Milvid AVE.
 1300 Drillers breaking asphalt for soil gas port location.
 1307 Drillers started breaking asphalt for MW-22.
 1316 PBW installed Soil vapor point into first hole (1300). Drillers Geoprobe to 5' bgs. Approx. 1' of sand added around port. 4'-5' sand.
 1316 SG-22 - Soil gas port location. Located 3' N of MW-8.
 SG-22 - Soil sample collected for field screening. See field data sheet for additional information.
 1320 Drillers cleaning hole to 5' with air/water knife for wellbore prior to drilling/geoprobe for MW-22.
 1332 Cleaning finished at MW-22.
 1338 Setup on MW-22 for geoprobe.
 1339 Started geoprobe. Drillers used rods that were used to collect SG-22 soil sample. (No down between.)

Joe Jorg 5-07-2012

Location Bexar Co., San Antonio, TX Date 5-07-2012
 Project / Client REHO.1 / Tropicana Energy Superfund Site
 Oversight - Monitor Well - Soil Vapor Point Installation

- 1345 Soil grab samples collected from
8'-10' bgs. MW-22 (8'-10')
- 1350 Soil grab sample collected from
10'-11' bgs. MW-22 (10'-11')
- 1354 Soil grab sample collected from
12.5'-15' bgs. MW-22 (12.5'-15')
- 1354 Rubin Moya with ~~US~~ EPA on site.
- 1400 Soil grab sample collected from
the interval 16'-17'
- 1401 Soil grab sample collected from the
interval 19'-20'
- 1420 Last interval did not recover, gravel came in.
- 1425 Soil grab sample collection from
interval 22' to 24'
- 1425 Chris Villalobos and Kenneth
with U.S. EPA on site.
Gravel causing into hole.
- 1515 U.S. EPA Chris V., Rubin M.,
and Kenneth off site.
Chris V. took the soil grab
samples that were collected from
MW-21, SG-21, MW-22 and
SG-22.

Joe Flores 5-07-2012

Location Bexar Co., San Antonio, TX Date 5-07-2012
 Project / Client REHO.1 / Tropicana Energy Superfund Site
 Oversight - Monitor Well - Soil Vapor Point Installation.

- 1549 Off site at REHO.1. going to
FedEx to pickup Summers and Bandera.
- 1633 Arrived at Bandera Superfund Site
to ask Chris V. some questions
regarding the soil vapor collection
points.
- ~~1653~~ ^{SF} 5-7-12 Off site at Bandera to pickup
Summers and Bandera.
- 1720 Arrived at FedEx. Pickup
two Summers canisters
- 1730 Arrived back at hotel
started preparing equipment/
supplies for next days
- 1830 Finished for the day.

Joe Flores 5-07-2012

Location Bexar Co. San Antonio Tx Date 5/08/2012
 Project / Client REHCO / Tropicana Energy Superfund Site
Oversight / Soil Vapor Collection

- 0915 Left hotel for FedEx to pickup remaining
 Summa canisters from EPA Reg 6 lab at FedEx
- 0940 Arrived at FedEx, Picked up 5
 EPA Reg 6 Summa canisters.
- 0950 Left FedEx for REHCO / Tropicana Site.
- 1025 Arrived at REHCO / Tropicana Site.
 Teri McMillian with EA overseeing
 well development at MW-21.
- 1030 Started constructing sample train for
 soil vapor and subslab sample collection.
 Raining, cool, 70°F, Thunder and lightning
- 1130 Finished constructing sample train.
- 1135 Will start logging Summa canisters
- 1200 Off site for lunch.
- 1339 Arrived back on site.
- 1345 Will start setup on ~~SG-21~~ for
 soil vapor collection.
 Summa canister serial No. 10290
 Flow regulator/Canister flow gauge 29.5 inches off
- 1354 PRP started collection of their sample at
 SG-21. A duplicate was collected at location
 also. PRP vapor sampler is Tim Nicklas
 PRP using 1 to Summa canisters.

Joe Flores 5-08-2012

Location Bexar Co. San Antonio Tx Date 5/08/2012
 Project / Client REHCO / Tropicana Energy Superfund Site
Oversight / Soil Vapor Collection

- Raining, 66°F, No breeze.
 Note: PRP vehicle was running while
 they collected their sample. Vehicle
 was next to well head/port and
 Summa canister setup.
- PRP having difficulty recovering soil vapors
 due to tight clay.
- 1402 PRP vehicle not next to sample location
 any longer.
- 1414 PRP finished sample collection at
 SG-21
- 1420 Started setup at SG-21
- 1422 Started purge of the lines and boxing -
 1.0 to 2.0 cc/min. Filled purge bag to
 1000 mL approx.
- 1426 Started. Summa pressure - 29.5 in Hg.
- 1429 Stopped. Summa pressure ending - 5 in Hg.
- 1430 Started filling bag
- 1437 Unable to fill bag. Formation too tight.
- 1429 Sample collection time for
 SG-21.
- 1442 Called Chris Villanar with EPA

Joe Flores 5-08-2012

Location Bexar Co. San Antonio, TX Date 5/08/2012

Project / Client RCH Oil/Tropicana Energy Superfund Site
Oversight/Soil Vapor Collection

to let him know that the formation
 was too tight to collect a bag
 sample from the SG-21 using the
 "Box lung".

1452 Arrived at SG-22 to collect
 soil vapor sample. At location Tim Nickles (PBW)
 Teri McMillan (EA) and John (PBW).
 SG-22 Summa canister information.
 Canister Serial No: A3423
 Flow regulator/Canister flow gauge
 -30 in Hg

Raining again. No breeze. 66°F
 PRP sampling at SG-22.

Formation at location is very tight.
 Little change is noticed in the PRP's
 Summa regulator. PRP using a 1L
 Summa canister.

1517 PRP finished collection at SG-22. PRP
 Sample Tim Nickles.

1519 Started setup at SG-22

1524 Started purge of line and "Box lung".
 Gil Air pump rate 1.0-1.5 cc/min.

1527 Completed purge and filled purge

Joe Jones 5/08/2012

Location Bexar Co. San Antonio, TX Date 5/08/2012

Project / Client RCH Oil/Tropicana Energy Superfund Site
Oversight/Soil Vapor Collection

bag to 1000 ml approx.

Canister start ~~from~~ ^{5/8/12} vacuum -30 in Hg

1529 Started sample collection of Summa.

1530 Ended sample collection of Summa
 -5 in. Hg. Inlet may be leaked.

1535 Finished collection of Box lung
 sample bag. Unable to collect
 a sample. Formation too tight.

1529 Sample collection time for
 SG-22.

1609 Started setup at SG-22.
 Sub slab sample collection for
 Soil vapor.

Had to re apply bentonite ^{around} ~~around~~ ^{5/8/12} the sample point due too old
 bentonite being cracked.

Summa canister Serial No: 10283

Canister vacuum -30 in Hg.

1613 Setup complete.

1614 Started purge of line and
 Box lung.
 Gil Air set at 1.0 cc/min.

1617 Finished purge of line and Box lung

Joe Jones 5/08/2012

Location Bexar Co., San Antonio Tx Date 5/08/2012
 Project / Client REH Oil / Tropical Energy Superfund Site
Oversight - Soil Vapor Collection

- filled purge bag to 1000ml approx.
 1618 Started Summa collection.
 Starting vacuum -30 in Hg
 1619 Finished collection at -6 in Hg
 1620 started filling Box lung bag.
 1621 Finished filling Box lung bag.
 Sample collection time for
1619 SS-2.
 1625 Finished Sampling at location.
 1650 Starting setup at SG-14
 Canister serial No A3426
 Canister flow/flow regulator vacuum -30 in Hg.
 light rain, no breeze, -66°F
 1656 Finished setup at SG-14.
 1658 Started purge of line and Box lung.
 Tight formation conditions only able to
 purge approx 150 mL into the
 purge bag. Gil Air pump set at
 1.0 cc/min then increased to 2.5
 cc/min.
 1702 Unable to fill purge bag to 1000 mL.
 due to tight formation.

Joe Jones 5/8/12

Location Bexar Co., San Antonio Tx Date 5/08/2012
 Project / Client REH Oil / Tropical Energy Superfund Site
Oversight - Soil Vapor Collection

- 1706 Started collection of SG-14
 Canister vacuum -30 in Hg.
 Very tight, no movement of gauge.
 or very little movement. Movement
 from -30 in Hg to -29.5 in Hg.
 Able to hear startup air flow and
 then unable to hear anything.
 1716 Finished collection gauge did not
 move - final reading -29.5 in Hg.
 1719 will try to collect Box lung bag
 sample.
 1721 Unable to fill Box lung bag. Formation
 too tight.
1716 Sample collection time for -
 SG-14.
 1735 Started setup at SG-15. Duplicate
 sample SG-15-D and parent sample
 SG-15 will be collected at location.
 Light breeze, cloudy, cool 70°F
 1738 Unable to collect sample at
 location, sample port line cut by
 called Chris V. to select a new
 location. SG-19 will be replace location,
 will sample on 5-9-2012

Joe Jones 5-08-2012

Location Bexar Co, San Antonio Tx Date 5/09/2012Project / Client R&H Oil/Tropicana Superfund Site

Oversight - Soil/Vapor Collection

1815 Off site for the day.
1840 Arrived at hotel. Started preparing
for next day.
1930 Finished for the day.

Joe Glaze
5-09-2012

Location Bexar Co, San Antonio Date 5/09/2012Project / Client R&H Oil/Tropicana and Superfund Site

Oversight - Soil/Vapor Collection - GW Collection

0630 Left hotel for R&H oil.

0650 Arrived at site.

See Teri McMillan log book for
field information regarding field
activities.

1900 Off site.

Joe Glaze
5-09-2012

Project / Client RCH/O/Tropicana Superfund Site

Oversight - GW Sample Collection.

0635	Left hotel for site.
------	----------------------

0650	Arrived on site.
------	------------------

See Tami mamulino logbook
for field activities.

1230	Finished activities at site.
------	------------------------------

1430	Started sample custody
------	------------------------

2020 Arrived at Fed Ex with eight sample coolers to be sent to

A4 in The Woodlands, Tx.

79 353 0090858 SV/SV 57m

7983 6076628 TVOA-MA-1352,6 -T

TVOFT 57m - SO Mo. 2

798360 77 0990 TWA-MA 1359.6 + TWA 57m-

Soln: 1.2

7983 6076 2834 $50/5057m$

79.35	3027	3107	SV/SV 53m
-------	------	------	-----------

79 23 6057 4464 DM THz 75M01.3,

GC-MS GC-MS

79.35 3008 3422 SV/SV57m

7935 3000 5105 5V/5157m

2035 End of day left FedEx.

~~Core Data~~ 5-10-2012

Location _____ Date _____

Project / Client _____



ALL-WEATHER ENVIRONMENTAL FIELD BOOK

Name EA Engineering, Science and Technology
Inc.

Address 405 S. Hwy 121 Bypass C-100
Lewisville TX 75067

Phone 972-315-3922

Project R&H Oil / Tropicana Energy Superfund
Site Remedial Investigation / Feasibility
Study Oversight
Logbook 2

This book is printed on “Rite in the Rain” All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

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155 Conversions (Concentrations, Volume/Flow or Time, Velocity, Acceleration)
156 Maximum Concentration of Contaminants for the Toxicity Characteristic

7:15 Arrived at site
PBW not on-site
7:19 - conducted H&S tailgate meeting
7:40 Tim Nickels On-site
7:50 Jose Flores off-site to get supplies/ice
7:55 Don with PBW on-site
8:00 Vortex - (driller) on-site
8:05 - H&S meeting PBW
8:30 ON Fitch Street - setting up to Geoprobe MW-21 & S621
Cut slurry piling then for auger to 5' to clear debris
8:55 Jose Flores on-site
9:20 began geoprobing MW 21
Taking Soil Samples
Tercore - & Soil
Samples for field PID measurements
- 6-7', 9-10', 11-12' & 14-15'
HC odor 9-10' & 11-12'
J. M. Miller

T. McMullen, 5. Flores

HC odor 14-15' bgs

Lab soil samples 6-7' & 14-15'

wet at 11-12' bgs

No staining visible

20-23' bgs - Estimated

gravel is present in this

Section clay at the bottom

No HC odor

PID measurements -

6-7' - 78.9 ppmv

9-10' - 833 ppmv

11-12' - 3651 ppmv

14-15' - 1196 ppmv

1000 Took 2 additional

Soil samples for Headspace

16-17' & 19-20'

Using geo probe w/ auger

slight to advance borehole
to install well.

1012 - Putting in bore hole for

Vapor pt SG-21 - cutting

Asphalt

1025 - borehole complete auger

1023 left in borehole

T. McMullen / 5 Flores

Until well supplies air

10:25 - Hammering in

flight (Rod) Geoprobe for

Vapor point - Outside

of geoprobe Rod - not

decanned - inside decanned

1030 placing in vapor pt.

In borehole -

putting in one foot of

sand - 4-5' bgs

Total Depth 5' -

Soil is Clay - gray 0-5' bgs

Took sample 2-3' for

heated headspace.

Plan specifies that vapor pt

will be 6" off bottom of bore

hole. it is not. Plan specifies

fine bentonite on top of sand

This was not completed.

Instead they used on granular

bentonite

10:35 Supplies for well

arrived

J. McMullen

Location R#1 Oil/Trop Energy Date 5/7/12

Project / Client EPA

T. McMullan / 3 Flores

OD of augers 6"

Screen - 10 slot 15 ft.

1037 - Putting granular bentonite
in vapor pit. - hydrating
as he goes.

1042 - pulling auger flights
from bot MW-21

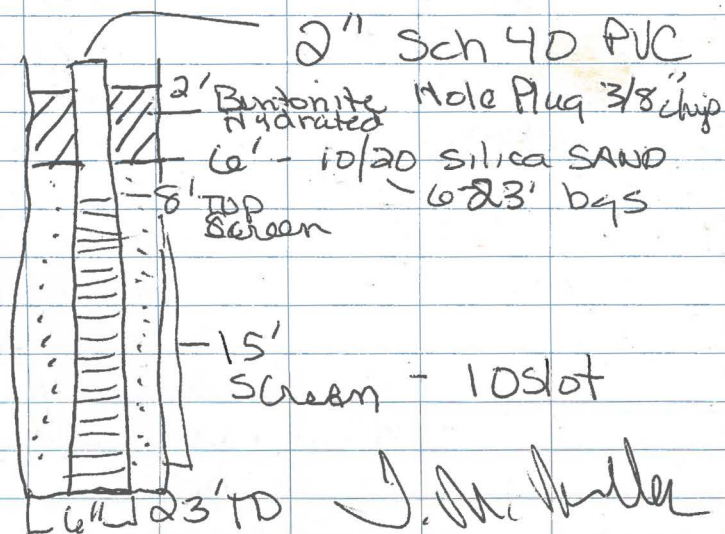
Taking PID Measurements

MW-21 - 16-17' 18.61 ppmv

MW-21 19-20' 23.8 ppmv

SG-21 2-3' 23.9 ppmv

1045 - Setting well MW-21
Sand / silica 10-20



Location R#1 Oil/Trop Energy Date 5/7/12

Project / Client EPA

T. McMullan / 3 Flores

1135 - Off-site Lunch

1240 On-site

1300 Setting up on SG-22

SG-22 is located west of
well MW-8.

They are coring/cutting
pavement.

1310 - Chris w/ EPA Tom called.
Went over soil sampling

1311 - They are probing &
post hole digging borehole.

1313 - Geoprobe to 5' -
will collect soil sample
for PID 3-4' - Vapor
Probe to 5' - TD of borehole
Then 1 ft of silica sand
(10-20) to 4' bgs.

1316 - collected sample from
3-4' 2-3 ft for Headspace

Added granular bentonite
hydrated w/ water. SG-22
Soil is clay w/ calcareous
dry - much drier than
SG-21.

T. McMullan

Location R&H/Trop Energy Date 5/7/12

Project / Client EPA

T. McMillan / J. Flores

1320 - moved Geoprobe rig over to MW-22 - ~5' west of SG-22
Set Vac - down to 5' on MW-22

while we were at lunch the drillers completed surface completions for MW-21 & SG-21

1331 - Set Vac complete
no utilities observed.

1334 - backed Geoprobe rig over SG-22 & shoring it)
then set up on MW-22 to begin geoprobings.

Geoprobe rods - were not decontaminated on outside before starting this hole - Inside was cleaned.

1338 - started geoprobings MW-22 -

Placed acetate glove on body that were not cleaned

5-10' sample - gravel at top

1345 Sample for Lab 8-10' - also headspace - Lab Tars & Co Clay

Location R&H/Trop Energy Date 5/7/12

Project / Client EPA

T. McMillan / J. Flores

12.5 m
10-15' - Took sample from 1350 10-12.5' for PID only
12.5-15' for Lab & PID
EA Took samples for EPA at all intervals where PID measurements were made. Samples placed in gallon baggies - air removed baggies labeled Site Name well ID, Date interval Time collected Samples put on ice. This was done for well MW-21 & SG-22 as well.

1354 - Sample from 12.5-15' after PBW obtained their sample - NO HC odor
New gloves (nitrile) used to collect each sample.

15-20' - sample obtained

1357 Ruben Moysa w/EPA on-site

1400 - 15-20' sample took sample 16-17' bgs
18-20' Lab

R#H/Trop. Energy Date 5/7/12

EPA

T. McMullan / J. Flores

19-20' bgs - for Headspace

19-20' sample for Lab - PBW.

TerraCore

Wet at ~ 16 feet - Clay starts
at 16-20' above gravel w/
silt & sand.1401 - Sample from 19-20' - for
EPA.20-23' sample is stuck in
Rod. They are trying to
remove it

1424 - Remove core - wet - (soft)

Clay tam - placed on table -
w/out acetate - obtained
sample 22-24 for PID
& EPA.1425 - Chilson-site.
rent on-site.1430 25-27' - Silty Clay
as above no HC odorBegan Augering hole - Augers
are clean, will Drill
to 25' TO - 15' screen

J. McMullan

R#H/Trop. Energy Date 5/7/12

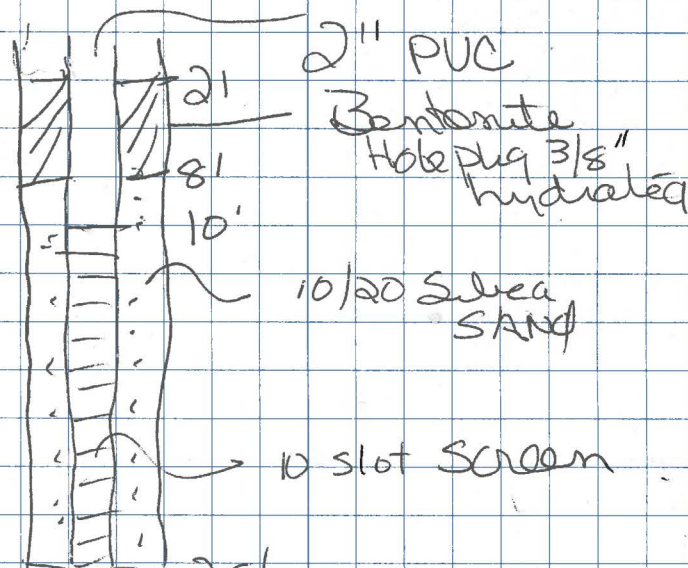
EPA

T. McMullan / J. Flores

SGPDD Measurements

Tr	Depth	Conc
1401	22-3-4'	0.0 ppmv
MW 22	8-10'	0.2 ppmv
MW 22	10-12.5'	0.1 ppmv
MW 22	12.5-15'	0.4 ppmv
MW 22	16-17'	35.4 ppmv
MW 22	19-20'	12.1 ppmv
MW 22	22-24'	0.4 ppmv

1446 Building well MW 22
Hole stayed open
15' screen 10 slot



1453 well 25'

J. McMullan

R&H/Trop Energy 5/7/12

EPA

T. McMullan / J. Flores

15:05 - packing samples for
EPA - Portable Lab

1515 - EPA off-site w/ samples

MW-21, - Soil to Lab

6-7'

11-12'

14-15'

MW-22 - Soil to Lab

8-10'

12-14'

18-20'

1555 off-site

T. McMullan

R&H/Trop. Energy 5/8/12

EPA

T. McMullan

9:30 - On-site ^{John TM} - Don Brayton with
PBW on-site.

931 - H&S plan -

945 - ^{John TM} Don is setting up on
well MW-21 to begin
development.

950 gauged well MW-21

016.51 DTW

23.10 TD

Wattera - check ^{foot valve} valve #1
D25 part # with

Surge block.

Taking parameter reading

Sp Cond, pH, temp. every

2 1/2 gallons - one well

volume is 1 gallon - so

1030 Jose Flores on-site.

He is setting up for vapor

sampling

1035 - ~~Don~~ developed water

from well MW-21 has a

slight hydrocarbon odor

1037 - Raining - steel

developing

J McMullan

14
Location R&H/Tropicana Inc Date 5/8/12
Project / Client EPA
T. McMillan / J Flores

1041 - stopped development
due to rain

1054 - off-site to home Depot
for plastic & bails (hose).

1125 - Back on-site

Turn on-site - checking.

Press of Summa canisters

1154 - off-site lunch

1300 - lunch over - off to
Lowes to find a part

1344 - Back-on-site. -

Development complete on
well MW-21 ~ 25 gal
developed parameters
stabilized

1345 - Vapor samples from
SG-21 - checking to

make sure seals holding

Seals holding

Electric helium detector

Adding helium to container

Over well - applying pressure
to container to make sure
does not leak. J. McMillan

15
Location R&H/Tropicana Inc Date 5/8/12
Project / Client EPA
T. McMillan / J Flores

53% helium in container
checking to see if helium
came in sample pt.
using Tedlar bag

Used syringe to move
air from sample pt to
Tedlar bag

Checking Tedlar for helium
No helium in Tedlar
bag - ~~no helium in line~~
575 ppmv helium in
line

Sampling - filling

Summa canisters -

also collecting duplicate

Still raining but not
as much

1400 ~~1400~~ Moved to MW-22
to develop

1413 - stopped filling canisters.

22" Hg - reading on
both canisters. Formation
is clay & tight. Was
on line for 20 minutes
J. McMillan

R&H/Trop Energy Date 5/8/12
EPA
T. McMillan / J. Flores

1417 - 2A setting up
Summa to fill at SG-21
Hooking up

1420 - Purging line
- Then collected sample

1428 - Shut off Summa

1445 - Moved to SG-22.

Still developing

MW-22

DTW - 16.62' bgs

TD 25.20' bgs

20 gallons out - dry four
times - Finished
developing - Developed

just like MW-21

pH, spec. temp stabilized
fairly clear little silt/sand.

1450 - PBW setting up to collect
Vapor sample from SG-22.

Still developing

using same sample Vain

- purged it to clean it.

Checking to make sure
light. Applied vacuum -

R&H/Trop Energy Date 5/8/12
EPA
T. McMillan / J. Flores

- no leaks held vacuum

- doing helium test

Helium in chamber 81.1%

Formation tight - can not
purge -

Trying helium detector

on purge line - 175 ppm helium

1501 - Starting - Summa

Canister - starting vacuum

1517 - Stopped filling Summa

- Gauge did not move -

unable to obtain sample.

1518 2A setting up.

PBW is sending canister to

Lab - telling them to hold
it

1519 2A - purging SG-22.

Albe to purge

1528 - Turn on Summa

it appears that top of Summa

is leaking

1535 - Tedlar for EPA - could not

get sample - too tight.

Hooking Purge pump directly

R#H/Trop. Snow Date 5/8/12

EPA

T. McMullan / J. Flores

too to sample line - could
not pull any air -

Don w/ PBLW left site
1600 taking vapor
samples on-site see
Jose Flores Field notes.
1815 - off site

[Signature: T. McMullan]

R#H oil/Tropicanna Date 5/9/12

EPA

T. McMullan / J. Flores

7:00 - arrived at site -
after picking up ice for
samples

7:05 - H&S tailgate meeting

7:10 Preparing for sampling

7:50 John Brighton from
PLWB arrived at the site

8:02 John is gauging wells
gauged well then decanned
probe w/ alienox/water mix
then water rinse - using
spray bottles - containerizing
decan water in bucket.

Gauging wells that do
not contain NAPL first
then at end gauge NAPL
wells. Used paper towel to wipe probe

8:30 Gauging off-site wells

9:08 Gauging wells with
NAPL - Using another
probe (Interface) used
just for wells w/ NAPL
cleaned probe as above

[Signature: T. McMullan]

R4H Oil/Trop. Engr, 5/9/12

EPA

J. McMullan / J. Flores

They are gauging from
least amount of NAPL to
greatest. - as practicable

940 John has finished
gauging

945 John off-site.

1001 John on-site

1006 - AT well MW-4 - PBW
Setting up to sample.

1010 - EA placed plastic sheeting
around the well. PBW has
Geopump peristaltic
pump. placed inside
chuck & flow thru cell, meters
PBW stated that meters
were calibrated.

Using dedicated tubing in
wells. - Tubing 2 feet
off bottom of well.

1018 started peristaltic pump
- 2 liters / min pumping
- static wl = 20.71 ft b/c

1021 initial pumpwl - 21.20 John
Does not know TD of well
J. McMullan

R4H Oil/Trop. Engr, 5/9/12

EPA

J. McMullan / J. Flores

1026 WL - 21.24 ft b/c

1031 WL - 21.29 " "

Sample CLP #2 for well
MW-4

F5MP4 - 6 VOAS

F5MA1 - Duplicate 6 VOAS

HCL preservative

Analyzed for VOCs

TVOA - ma = #1359.6 + TVOA

Sum - 50 mol. 2

Two VOAS unpreserved for
EPA. NAP site field GC/MS

1037 - Final Readings

purge rate 0.22 l/min

Temp 23.7 °C ± 1

Sp. cond 1158 $\mu\text{mhos/cm} \pm 10\%$ al

DO 0.15 PH 7.04 ± 0.2

Redox -355.1 (mV)

NTU 16 - ± 10%

Water depth 21.30 ft b/c

Filling VOAS for PBW.
EA TM

1047 - filling VOAS - MW-4
John filling them for us.

J. McMullan

R#1 Oil / Trop. Envs 5/9/12
EPA
T. McMullan / J. Flores

1115 - They were going to take samples for metals using a filter. Told them that EPA had directed them not to. John called Tim Nickels & Tim told John not to use filter.

1118 - Finished sampling.

1130 - At well MW-20 to sample. Setting up to sample.

1137 - Started peristaltic pump.

- Initial WL 21.13 ft b/c 0.2 l/min pumping rate.

- Intake of hose on well is 2 feet off of the bottom tubing has mark w/ sharpie showing where to pull up to.

John does not know TD of well. SOP states to place intake at middle of well screen or lower.

1147 DTW - 21.34 ft b/c checking parameters

R#1 Oil / Trop. Envs 5/9/12
EP
T. McMullan / J. Flores.

and pump rate as they purge.

1156 DTW 21.34 ft b/c

MW-20

CLP # FSMP7

6 VOAS for VOCs - HCL

TOVA - MA#1359.6 + TVOA Sum

So MOI. 2

2 VOAS for EPA - unpreserved.

Final measurements - stable

purge rate 0.2 l/min

Temp 25.0 ± 1 °C

pH 7.17 ± 0.1

Sp. Cond 1028 $\pm 10\%$
(mmhos/cm)

DO 0.59

Redox -181 (mV)

Turbidity 36 $\pm 10\%$ ✓

Final DTW 21.34 ft b/c

1158 - PBW filling their VOAS.

1202 PBW filling our VOAS

1225 - Off-site

1335 - on-site

1345 Setting up on MW-9 to sample J. McMullan

R&H Oil / Trop Eng 5/9/12
EPA
T. McMullen / J. Flores

13:52 - Well - began pumping
Initial 1 @ 28 ft WL
2nd Reading 1 @ 29 ft bgs and reading
flow rate 0.2 l/min.

MW - 9

CLP # F5MP5 F5MP5

6 VOAs for VOCs HCL

TVA-MR#1359.6 + TVA-SIM.

SOMOL.2 - Lab

2 VOAs for EPA non-presur.

Set up for purging the
same as other wells

Dedicated tubing

Peristaltic Pump

Measuring flow rate &

field parameters &

Depth to water.

EA placed plastic around
well.

1410 - PWB PWB begins to
Sample

Parameters Stable as

Final Parameter

Measurements.

R&H Oil / Trop Eng 5/9/12
EPA
T. McMullen / J. Flores

Purge Rate	0.2 l/min	
Temp °C	25.5	± 1 ✓ Im
pH	7.23	± 0.1 ✓ Im
Spec Cond	902	± 1050 ✓
DO	0.42	
Redox (mv)	-128	
Turbidity	16	± 10% ✓
DTW	16.29'	bgs

1412 EA sample VOAs filled
by PWB

Sample tubing intake in
well is set 2' above bottom
of well - at 43' bgs

TD of MW-9 45' bgs

Depth from for MW-9 was
from cross-section

1430 PWB finished collecting
samples from MW 9
SVOCs & Metals & VOCs.

Metals were not filtered
1434 Setting up on well
MW-21

J. McMullen

RENOIL/Trop Energy Date 5/9/12
 EPA
 T. McMullan / J. Flores

1440 Well MW-21 - Disconnecting
 WL probe

PBW is placing tubing
 for purging into new well

MW-21 - Brought tubing
 2 ft from bottom of well

change out tubing to flow
 thru cell - has done this

every time

Start WL 16.31' bgtc

1450 - Resetting tubing in well
 Cell too short

Samples CLP# for MW-21

FSMP8 - MW-21

FSMD0 - MW-21 - Dup

6 UOAS each HCL - VOCs

TUOA-MA#1359.6 + TUOASIM
 SOMOL.2

2 UOAS for EPA Hapsite GC

1453 Ruben Moya &

Chris Villreal on-site

NO equipment blank

will collect Field blank

1456 0.2 l/min. S. Mullan

RENOIL/Tropicanna Date 5/9/12
 EPA
 T. McMullan / J. Flores

Purging well as other
 wells were purged.

1503 WL 16.48' b+c

1507 WL 16.49' b+c

purge rate 0.2 l/min

1512 Tom is going to
 find a couple soil
 gas points that are not
 tight.

1515 - OPBW sampling - filling
 their UOAS.

1520 PBW filling EA's UOAS

1529 Samples labelled once

PBW filling SUOC &

metals containers.

1545 Moving to next well

1547 at MW-22 - Setting
 up to sample

measuring & placing
 tubing into well.

CLP# FSMP9

6 UOAS HCL - VOCs

TUOA-MA#1359.6 + TUOASIM

SOMOL.2 - analysis

S. McMullan

Location R#H01 & Trap Energy Date 5/9/12

Project / Client EPA

T. McMullan / J. Flores

2 VOAS for EPA HAPS site
1603 - started peristaltic
pump on well MW-22.

Set up & purging same as
described for other wells.

Initial WL - 1646' b/c

0.2 l/min. flow rate

pump intake - set at
(tubing intake) 2' from

total depth 23.20' ft bgs

1614 WL - 1657' b/c

1618 WL - 1658' b/c

1622 - collecting ~~equipment~~ Tm
field Blank

1624 JPBW started filling
his VOAS for well MW-22
parameters stable.

1628 Sampling - Filling EA's
VOA's

1507 Chris & Ruben left with
samples for Hapsite.

1700 - off to new well
talked to Tim regarding
which wells sol gas

Location R#H02 & Trap Energy Date 5/9/12

Project / Client EPA

T. McMullan / J. Flores

he could pull ^{air} ~~water~~
through. He gave us
list & Jose called
Chris w/ EPA to determine
which two to sample.

1710 - started ~~purging~~
~~sampling~~

MW-18 -

WL - initial 22.29

flow 0.2 l/min.

MW-22 - final field

measurements

0.2 l/m - purge rate

25.2°C Temp $\pm 1^\circ\text{C}$

7.14 pH mmhos/cm $\pm 0.1^\circ\text{C}$

924 Spec Cond $\pm 10\%$

1.44 D.O

-97 Redox (mv)

11 Turbidity $\pm 10\%$

16.58 DTW

MW-18 - purging equip
completed & set up as well
that were already sampled
Info of tubing 2' above total depth

J. McMullan

Location R&H Oil/Trop. Env. Date 5/9/12

Project / Client EPA

T. McMullan / J Flores

1721 - Jose stated that Chris wanted to sample SG-19 - medium designation Summa & Summa dup.

SG will be collected into Tedlar bags for SG-13 SG-16, SG-17, & SG-20

Turn w/ PBW - tested the following wells for air flow & they were too tight SG-12, SG-14 & SG-18.

1722 DTW in MW-18 22.42' bgs take 1st readings usually 10 min. after pump has been running.

1728 WL MW-18 22.42' bgs

1730 0.2 L/min purge rate

1732 - PBW is beginning to fill UOA bottles

EA CLP# MW-18

F5MP3 VOCs SVOCs
6 UOAS HCL 4th Nmba unpurified
MFSMP3 - 1 Lb only - Nmba, metals
SV/SVSIM-MA 1859.10 50 m DI.O
T. McMullan SVOCs

Location R&H Oil/Trop. Env. Date 5/19/12

Project / Client EPA

T. McMullan / J Flores

TUOA-MA#1359.6+TUOASum -
So mol. 2 VOCs)

Tm+Hg 15 mol. 3, ICP-MS+ICP-
AES (metals)

1737 - Filling 2A UOAs -
will fill 2 UOAs for EPA
Hapsite GC.

Filling SVOCs containers &
1 container for metals
Fixed parameters stabilized

0.2 L/min - Purge rate

25.1°C Temp - ± 1 ✓

7.14 pH ± 0.1 ✓

5442 $\mu\text{mhos/cm}$ Spec. Cond $\pm 10\%$ ✓

0.11 DO

-1824 Redox (mv)

24 Turbidity $\pm 10\%$ ✓

DTW 22.42

They took 3

Measurements per well

1825 - Finished Sampling & Tm

filling all containers

Samples on ice

T. McMullan

RAH Oil / Trop Energy 5/9/12

EPA

T. McMillan / J. Flores.

1832 - Setting up on SG-19
to collect Vapor samples
Will collect 1 Summa

1 Summa Dup
1 Tedlar for

EPA Hapate GC

Summa Canister SG-19

- DO275 29.5" Hg initial

Summa Canister SG-19 Dup

- DO276 30.0" Hg initial

6 liter Summa Canisters

Tested to make sure

Canisters tight -

using purge pump -

it did not pull air.

1840 - purge pump on
(Gillian - air pump)

purged line

1842 Clamped - Lung box

1843 Turned on both Summa
Canisters

1844 Summas both off

DO275 - 5" Hg final

(Dup) DO276 4" Hg final

J. McMillan

RAH Oil / Tropicanna 5/9/12

EPA

T. McMillan / J. Flores

1845 clamping both Summas
and filling Tedlar in
Lung box.

Then clamped line &
closed Tedlar & removed
from Lung box.

1852 - going to SG-20 to
collect soil gas in
Tedlar bag -

1856 - hooking up Tedlar
to Lung box.

1858 Using foot pump to
fill Tedlar in Lung
box

SG-20 Sample time 1858

1900 moving to SG-13

Sample port.

1904 Setting up on SG-13 same

as we did for SG-20

1907 Sample time for SG-13

Filling Tedlar bag

PID measurement on end
of Sample line 0.5 ppmv

J. McMillan

R#H Oil/Trop. Energy

5/9/12

EPA

T. McMullan / J. Flores

1912- Setting up to
Collect Soil Gas at
SG-16^{16m} Tedlar bag
as done for SG-20^{20m}
New tubing used for
each location.

1915. Sample collection
began for SG-16 -
it is very tight -
could not obtain
sample of soil gas.

1919 Setting up at SG-17
to collect Vapor Sample

1922 began sampling
SG-17 - filling Tedlar
- too tight - could not
obtain air sample.

Blamed up -

1929 - off site.

McMullan

R#H Oil/Tropicanna

5/10/12

EPA

T. McMullan / J. Flores

7:6:58 Arrived at the site
702- H&S tailgate meeting
PBW, John, arrives on
site.

7:10 PBW purging MW-16
initial WL - 21.14' bte
Flow Rate 0.2 L/min
MW-16 CLP# FSMP1
6 VOAs HCL for VOCs
+ VOA-MA# 1355.6 + TVOASim -
Sornol 2

2 VOAs for EPA Hapsite field GS/
4 1-L. Ampers for SVOCs
SV/SVSim - MA# 1855.1 - Sornol 2
2 - 1L poly for metals/
MS/MO - vanc acid
m^s - Tm+Hg - I smol. 3, ICP - mst
1 CP - AES

Do not know TDO₂ well
pump tubing intake 2' off
bottom of well.

Dedicated tubing in the well
m^s indicated
New tubing thru the
peristaltic pump to the
J McMullan

TMH H9-13 mol. 3 1CP MBF 1CP KC

Location R & H / Trop Energy Date 5/10/12

Project / Client EPA

T. McMillan / S. Flores

900 PBW began to sample
Feeling their VOAs

905 - MW-14 - Feeling EA
VOAs, SVOCs & metals
Plus PBW SVOCs & metals

10:37 - Finished sampling
MW-14.

Parameters final meas

purge rate 0.2 l/m

Temp 22.9°C

pH 6.91

Sp. Cond 180 μ S/cm

DO 1.06

Redox -138 mV

Turb 51

DTW 23.29

Parameters stable

1045 - Surveyors On-site to
Survey well

Called Chris w/ EPA -

Told him we had 3 more

water samples for him

he said he would like us

to not collect any more

J. McMillan

Location R & H / Trop Energy Date 5/10/12

Project / Client EPA

T. McMillan / S. Flores

for his Hapate field GC.
Told him we had two
more wells to split samples
on - then we would be
packing our samples.

He said we did not need
to oversee sampling after
collecting the split samples.

Setting up on MW-19

1056 Started pump

Purging well w/ peristaltic
dedicated tubing as
was done on other wells

CLP# F5MPC

6 VOAs for VOCs HCL

~~for~~ T VOA - Ma# 1359.6 +

+ UASmm - 50 mol. 2.

Steel Lining - hard now

Canopy over well

& John in vehicle with

& Equip -

Decomming w/ probe

Initial 20.41' product

20.47' water

J. McMillan

R & H Oil / Trap Emu 5/10/12

EPA

T. McMullan / J. Flores

1107 m Product

~~1007~~ ~~THW~~ - 20.49' b/c

1112 0.2 l/min flow rate

~~1012~~ 0.2 l/min flow rate

m product 20.49' b/c

intake of pump line

1116 2' above bottom of well

~~1016~~ ~~m~~ product level 20.49' b/c

1117 0.2 l/min flow rate

~~1017~~ PBW began sampling

m filling UOAs

~~1020~~1120 Began filling EA
UOAsPBW filling samples
for their ~~are~~ SVOCs &
metals

1132 Teri McMullan off site.

Finished filling sample containers for
MW-19

Final parameter readings

Purge rate 0.2 l/min

Temp 23.5 °C

pH 7.05

J. McMullan

R & H Oil / Trap Emu 5/10/12

EPA

T. McMullan / J. Flores

Sp Cond. 936 $\mu\text{mhos/cm}$

DO 1.17

Redox -230 mV

Turbidity 37

DTW 21.49

Water quality parameters stable.

1143 Finished activities at location

Teri McMullan back on site.

1150 Setting up on well
MW-17.Sample tubing 2' above
bottom of well.

CLP# F5mp2

TUOA-mat#1359.6 + TUOASum-
Somol. 2.

6 UOAs for VOCs HCL

4 12 amber for SVOCs

SV/SUSum-mat#1359.1 Somol. 2.

CLP# mF5mp2

metals nitric acid.

1 l poly

Tm + Hg - 15 mol. 3, 1 CP. MS

+ ICP- AES

1157 Started purging MW-17
J. McMullan

R&H outcrop Emery 5/10/12

EPA

T. McMillan / J. Flores

flow rate 0.2 l/min

initial 21.34' product

21.35' water

1203 DT product 21.34'

flow rate 0.2 l/min

1210 DT product 21.36' btc

0.2 l/min flow rate

1215 DT product 21.36' btc

1216 started sampling

filling PBW's UOAs

1219 - sample time MW-17 -

filling EA UOAs

then PBW's & EA's

SVOCs & metals.

1300 finished sampling

final field parameters

purge rate 0.2 l/min

Temp 23.4 °C

pH 6.90

Spec. cond 967 $\mu\text{mhos/cm}^2$

DO ~~2.10~~ 0.91

Redox - 240

Turbidity 57

water depth 21.36' bgs

1310 - off-site J. McMillan

R&H out

ATTACHMENT 3
PHOTOGRAPHS



Photograph No. 1 (May 2012)

Description: Using Geoprobe® to install MW-21.



Photograph No. 2 (May 2012)

Description: Soil core samples collected in acetate sleeves at MW-21.



Photograph No. 3 (May 2012)

Description: Poly tubing surrounded with layer of coarse filter pack sand followed by a layer of bentonite to ground surface at MW-22.



Photograph No. 4 (May 2012)

Completed well vault with concrete pad at MW-22.



Photograph No. 5 (May 2012)

Description: Soil vapor gas testing with Summa canister and Tedlar[®] bag at SG-21.



Photograph No. 6 (May 2012)

Description: Ground water sampling at MW-20.



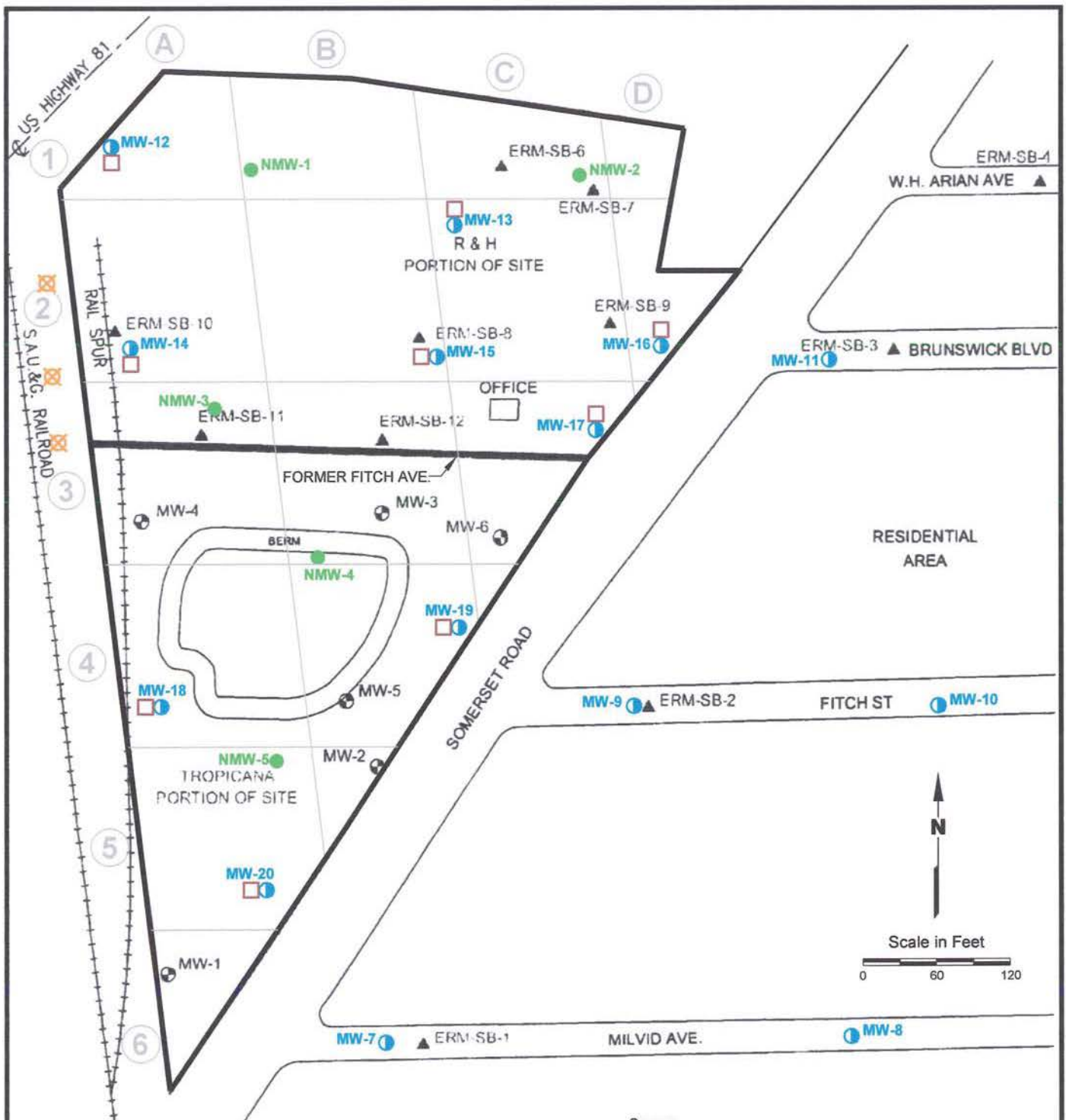
Photograph No. 7 (October 2011)

Description: Collecting ground water samples in the rain at MW-19.

ATTACHMENT 4

WELL LOCATION MAP

From PRP Field Sampling Plan by Pastor, Behling & Wheeler, LLC (PBW)



EXPLANATION

- Approximate Site Boundary
- ▲ Previous Soil Boring/Temporary Well Location
- Existing Groundwater Monitoring Well Location
- ① RI/FS Soil Boring/Groundwater Monitoring Well Location
- RI/FS Soil Boring/NAPL Monitoring Well Location
- RI/FS Soil Gas Sample Location
- Ditch Surface Water Sample Location (upstream sample locations to be determined at time of sampling).

Notes:

1. All locations are approximate.
2. RI/FS locations subject to modification based on field conditions.
3. Test pit locations will be determined based on soil boring and monitoring well data, and thus are not shown on this figure.

Source:

Base map from Engineering Management Support, Inc. Site Map dated September 2004.

R&H OIL/TROPICANA ENERGY SITE

Figure 3

PROPOSED RI/FS SAMPLE LOCATIONS

PROJECT: 1589

BY: ZGK

REVISIONS

DATE: SEPT., 2010

CHECKED: EFP

PASTOR, BEHLING & WHEELER, LLC
CONSULTING ENGINEERS AND SCIENTISTS

ATTACHMENT 5

CHAIN-OF-CUSTODY DOCUMENTATION

[illegible]

[illegible]

[illegible]

[illegible]

Items/Reason	Relinquished by	Date	Received by	Date	Time
	Jessie Jones	5-11-12			

AirbillNo: 7935 3051 8351

CHAIN OF CUSTODY RECORD

Site #: 06MB

No: 6-051012-232918-0014

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

[illegible]

Special Instructions:	Shipment for Case Complete? Y
	Samples Transferred From Chain of Custody #
Analysis Key: TO-15=TO-15	

[illegible]

[illegible]

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

29670.

TestAmerica

[illegible]

TestAmerica Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica

Client Information		Sampler: JOHN BRAYTON		Lab PM: Kudchadkar, Sachin G		Carrier Tracking No(s):		COC No: 600-9060.1																															
Client Contact: Mr. Tim Nickels		Phone:		E-Mail: sachin.kudchadkar@testamericainc.com				Page: 1 of 2																															
Company: Pastor, Behling & Wheeler LLC				Analysis Requested																																			
Address: 2201 Double Creek Dr Suite 4004		Due Date Requested:		<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>6010B, 7470A - Metals- TOTAL</td> <td>TX 1005, TPH: HOLD TX1006</td> <td>8260B_LL - VOC</td> <td>8270C_LL - SVOC</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470A - Metals- TOTAL	TX 1005, TPH: HOLD TX1006	8260B_LL - VOC	8270C_LL - SVOC																								
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470A - Metals- TOTAL	TX 1005, TPH: HOLD TX1006							8260B_LL - VOC	8270C_LL - SVOC																												
City: Round Rock		TAT Requested (days):																																					
State, Zip: TX, 78664		PO #:																																					
Phone: 512-671-3434(Tel) 512-671-3446(Fax)		WO #:																																					
Email: tim.nickels@pbwllc.com		Project #:		Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)																																			
Project Name: R&H Oil		SSOW#:																																					
Site: San Antonio																																							
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, ST=Tissue, A=Air)	Total Number of containers																																	
						Special Instructions/Note:																																	
MW-16		5-10-12	0750	G	W																																		
MW-14			0920	G	W																																		
MW-19			1130	G	W																																		
MW-17			1240	G	W																																		
MW-15			1420	G	W																																		
MW-13			1520	G	W																																		
MW-3			1620	G	W																																		
MW-2			1715	G	W																																		
MW-4		5-9-12	1100	G	W																																		
MW-20			1215	G	W																																		
MW-9			1430	G	W																																		
Possible Hazard Identification					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)																																		
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																		
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:																																		
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:																																	
Relinquished by: <i>John Brayton</i>		Date/Time: 5-10-12 1900		Company: PBW		Received by: <i>[Signature]</i>		Date/Time: 5/10/12																															
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:																															
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:																															
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:																																			

TestAmerica

TestAmerica

Page 93 of 94

AirbillNo: 7983 6076 6288

CHAIN OF CUSTODY RECORD

Case #: 42498

No: 6-050912-222243-0001

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MP4	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474050 (HCL pH<2), 6-474051 (HCL pH<2), 6-474052 (HCL pH<2), 6-474053 (HCL pH<2), 6-474054 (HCL pH<2), 6-474055 (HCL pH<2) (6)	MW-4	05/09/2012 10:47		
F5MP5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474056 (HCL pH<2), 6-474057 (HCL pH<2), 6-474058 (HCL pH<2), 6-474059 (HCL pH<2), 6-474060 (HCL pH<2), 6-474061 (HCL pH<2) (6)	MW-9	05/09/2012 14:12		
F5MP7	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474068 (HCL pH<2), 6-474069 (HCL pH<2), 6-474070 (HCL pH<2), 6-474071 (HCL pH<2), 6-474072 (HCL pH<2), 6-474073 (HCL pH<2) (6)	MW-20	05/09/2012 12:02		
F5MP8	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474074 (HCL pH<2), 6-474075 (HCL pH<2), 6-474076 (HCL pH<2), 6-474077 (HCL pH<2), 6-474078 (HCL pH<2), 6-474079 (HCL pH<2) (6)	MW-21	05/09/2012 15:20		

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6	Shipment for Case Complete? Y
	Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	

[illegible]

AirbillNo: 7983 6077 0990

CHAIN OF CUSTODY RECORD

Case #: 42498

No: 6-051012-151441-0009

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MP0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474000 (HCL pH<2), 6-474001 (HCL pH<2), 6-474002 (HCL pH<2), 6-474003 (HCL pH<2), 6-474004 (HCL pH<2), 6-474005 (HCL pH<2) (6)	MW-14	05/10/2012 09:05	MF5MP0	
F5MP1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474016 (HCL pH<2), 6-474017 (HCL pH<2), 6-474018 (HCL pH<2), 6-474019 (HCL pH<2), 6-474020 (HCL pH<2), 6-474021 (HCL pH<2) (6)	MW-16	05/10/2012 07:35	MF5MP1	
F5MP2	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474028 (HCL pH<2), 6-474029 (HCL pH<2), 6-474030 (HCL pH<2), 6-474031 (HCL pH<2), 6-474032 (HCL pH<2), 6-474033 (HCL pH<2) (6)	MW-17	05/10/2012 12:19	MF5MP2	
F5MP3	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474039 (HCL pH<2), 6-474040 (HCL pH<2), 6-474041 (HCL pH<2), 6-474042 (HCL pH<2), 6-474043 (HCL pH<2), 6-474044 (HCL pH<2) (6)	MW-18	05/09/2012 17:37	MF5MP3	

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6	Shipment for Case Complete? Y
	Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	

[illegible]

AirbillNo: 7983 6077 0990

CHAIN OF CUSTODY RECORD

Case #: 42498

No: 6-051012-151441-0009

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MP6	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474062 (HCL pH<2), 6-474063 (HCL pH<2), 6-474064 (HCL pH<2), 6-474065 (HCL pH<2), 6-474066 (HCL pH<2), 6-474067 (HCL pH<2) (6)	MW-19	05/10/2012 11:20		
F5MP9	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474080 (HCL pH<2), 6-474081 (HCL pH<2), 6-474082 (HCL pH<2), 6-474083 (HCL pH<2), 6-474084 (HCL pH<2), 6-474085 (HCL pH<2) (6)	MW-22	05/09/2012 16:28		
F5MQ6	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474134 (HCL pH<2), 6-474135 (HCL pH<2), 6-474136 (HCL pH<2), 6-474137 (HCL pH<2), 6-474138 (HCL pH<2), 6-474139 (HCL pH<2) (6)	TB-2	05/09/2012 21:30		
F5MQ8	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474146 (HCL pH<2), 6-474147 (HCL pH<2), 6-474148 (HCL pH<2), 6-474149 (HCL pH<2), 6-474150 (HCL pH<2), 6-474151 (HCL pH<2) (6)	FB-2	05/10/2012 07:36		

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6	Shipment for Case Complete? Y
Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	Samples Transferred From Chain of Custody #

[illegible]

AirbillNo: 7983 6076 6288

CHAIN OF CUSTODY RECORD

Case #: 42498

No: 6-050912-222243-0001

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	For Lab Use Only
F5MQ0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474086 (HCL pH<2), 6-474087 (HCL pH<2), 6-474088 (HCL pH<2), 6-474089 (HCL pH<2), 6-474090 (HCL pH<2), 6-474091 (HCL pH<2) (6)	MW-21-D	05/09/2012 15:20		
F5MQ1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474092 (HCL pH<2), 6-474093 (HCL pH<2), 6-474094 (HCL pH<2), 6-474095 (HCL pH<2), 6-474096 (HCL pH<2), 6-474097 (HCL pH<2) (6)	MW-4-D	05/09/2012 10:47		
F5MQ5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474128 (HCL pH<2), 6-474129 (HCL pH<2), 6-474130 (HCL pH<2), 6-474131 (HCL pH<2), 6-474132 (HCL pH<2), 6-474133 (HCL pH<2) (6)	TB-1	05/09/2012 07:30		
F5MQ7	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474140 (HCL pH<2), 6-474141 (HCL pH<2), 6-474142 (HCL pH<2), 6-474143 (HCL pH<2), 6-474144 (HCL pH<2), 6-474145 (HCL pH<2) (6)	FB-1	05/09/2012 16:22		

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6	Shipment for Case Complete? Y
	Samples Transferred From Chain of Custody #
Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2	

[illegible]

AirbillNo: 7935 3008 5105

CHAIN OF CUSTODY RECORD

Case #: 42498

No: 6-051012-172143-0012

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Shipment for Case Complete? Y
	Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	

[illegible]

AirbillNo: 7935 3009 0858

CHAIN OF CUSTODY RECORD

Case #: 42498

No: 6-051012-172816-0013

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Shipment for Case Complete? Y
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	Samples Transferred From Chain of Custody #

[illegible]

AirbillNo: 7935 3008 3422

CHAIN OF CUSTODY RECORD

Case #: 42498

No: 6-051012-171208-0011

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Shipment for Case Complete? Y Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	

Items/Reason	Relinquished by	Date	Received by	Date	Time
	Joe Long	5-70-12			

AirbillNo: 7983 6076 7836

CHAIN OF CUSTODY RECORD

Case #: 42498

No: 6-050912-223702-0002

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Shipment for Case Complete? Y
	Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	

[illegible]

AirbillNo: 7935 3027 3107

CHAIN OF CUSTODY RECORD

Case #: 42498

No: 6-051012-163408-0010

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Shipment for Case Complete? Y
	Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	

[illegible]

[illegible]

ATTACHMENT 6
AIR DATA SUMMARY

EA Engineering, Science, and Technology, Inc.

AIR DATA
FIELD INVESTIGATION SUMMARY REPORT, MAY 2012
R&H OIL/TROPICANA ENERGY SUPERFUND SITE

Sample ID	Sample Date	Analysis Method	Dilution	Analyte	Result	Units	Qualifiers	Reporting Limit
SG-19-D	5/9/2012	TO-15	10	Acetone	110	ug/m3		59
SG-19-D	5/9/2012	TO-15	1.30208	Carbon disulfide	ND	ug/m3	U	1
SG-19-D	5/9/2012	TO-15	1.30208	Carbon tetrachloride	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	10	Chlorobenzene	ND	ug/m3	U	12
SG-19-D	5/9/2012	TO-15	1.30208	Chlorodibromomethane	ND	ug/m3	U	2.8
SG-19-D	5/9/2012	TO-15	1.30208	Chloroethane	ND	ug/m3	U	0.86
SG-19-D	5/9/2012	TO-15	1.30208	Chloroform	ND	ug/m3	U	0.32
SG-19-D	5/9/2012	TO-15	1.30208	Chloromethane	ND	ug/m3	U	0.67
SG-19-D	5/9/2012	TO-15	1.30208	Cyclohexane	11	ug/m3		1.1
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dibromoethane	ND	ug/m3	U	2.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	Acrolein	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	1,3-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	1,4-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	Dichlorodifluoromethane	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	1,1-Dichloroethane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichloroethane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	1,1-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	cis-1,2-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	trans-1,2-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	500	1,2-Dichloropropane	ND	ug/m3	U	580
SG-19-D	5/9/2012	TO-15	1.30208	cis-1,3-Dichloropropene	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	Benzene	1.9	ug/m3		0.21
SG-19-D	5/9/2012	TO-15	1.30208	trans-1,3-Dichloropropene	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	1,4-Dioxane	ND	ug/m3	U	4.7
SG-19-D	5/9/2012	TO-15	1.30208	Ethyl acetate	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	Ethylbenzene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	1-Ethyl-4-methylbenzene	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	n-Heptane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	Hexachlorobutadiene	ND	ug/m3	U	3.5
SG-19-D	5/9/2012	TO-15	1.30208	n-Hexane	2.6	ug/m3		1.1
SG-19-D	5/9/2012	TO-15	1.30208	Benzyl chloride	ND	ug/m3	U	3.4
SG-19-D	5/9/2012	TO-15	1.30208	2-Hexanone	ND	ug/m3	U	2.7
SG-19-D	5/9/2012	TO-15	500	Isopropyl alcohol	18000	ug/m3		6100
SG-19-D	5/9/2012	TO-15	10	Methylene chloride	ND	ug/m3	U	8.7
SG-19-D	5/9/2012	TO-15	1.30208	4-Methyl-2-pentanone	ND	ug/m3	U	2.7
SG-19-D	5/9/2012	TO-15	1.30208	Methyl methacrylate	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	Methyl tertiary-butyl ether	ND	ug/m3	U	1.2

EA Engineering, Science, and Technology, Inc.

Sample ID	Sample Date	Analysis Method	Dilution	Analyte	Result	Units	Qualifiers	Reporting Limit
SG-19-D	5/9/2012	TO-15	1.30208	Propene	ND	ug/m3	U	0.56
SG-19-D	5/9/2012	TO-15	1.30208	Styrene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2,2-Tetrachloroethane	ND	ug/m3	U	2.2
SG-19-D	5/9/2012	TO-15	1.30208	1,3-Butadiene	ND	ug/m3	U	0.72
SG-19-D	5/9/2012	TO-15	1.30208	Tetrachloroethene	ND	ug/m3	U	0.44
SG-19-D	5/9/2012	TO-15	1.30208	Tetrahydrofuran	ND	ug/m3	U	0.96
SG-19-D	5/9/2012	TO-15	1.30208	Toluene	3.6	ug/m3		1.2
SG-19-D	5/9/2012	TO-15	1.30208	1,2,4-Trichlorobenzene	ND	ug/m3	U	2.4
SG-19-D	5/9/2012	TO-15	1.30208	1,1,1-Trichloroethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2-Trichloroethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	Trichloroethene	ND	ug/m3	U	0.35
SG-19-D	5/9/2012	TO-15	1.30208	Trichlorofluoromethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/m3	U	2.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2,4-Trimethylbenzene	2.4	ug/m3		1.6
SG-19-D	5/9/2012	TO-15	1.30208	1,3,5-Trimethylbenzene	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	Vinyl acetate	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	Vinyl chloride	0.27	ug/m3		0.17
SG-19-D	5/9/2012	TO-15	1.30208	meta-/para-Xylene	2.7	ug/m3		1.4
SG-19-D	5/9/2012	TO-15	1.30208	ortho-Xylene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	Bromodichloromethane	ND	ug/m3	U	2.2
SG-19-D	5/9/2012	TO-15	1.30208	Bromoform	ND	ug/m3	U	3.4
SG-19-D	5/9/2012	TO-15	1.30208	Bromomethane	ND	ug/m3	U	1.3

NOTE:

U = The analyte was not detected at or above the reported value.

J = The identification of the analyte is acceptable; the reported value is an estimate.

B = Blank related - The concentration found in the sample was less than 10 times the concentration found in the associated extraction, digestion, and/or analysis blank. Presence in the sample is therefore suspect.

ATTACHMENT 7

PRP LAB DATA REPORTS
(Only on compact disc)

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Tel: (713)690-4444

TestAmerica Job ID: 600-54676-1

Client Project/Site: R&H Oil

For:

Pastor, Behling & Wheeler LLC

2201 Double Creek Dr

Suite 4004

Round Rock, Texas 78664

Attn: Mr. Tim Nickels



Authorized for release by:

5/30/2012 5:24:57 PM

Cathy Upton

LAN Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
F	MS or MSD exceeds the control limits
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits
E	Result exceeded calibration range.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Job ID: 600-54676-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-54676-1

Comments

No additional comments.

Receipt

The samples were received on 5/9/2012 9:28 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.0° C.

Except:

One or more containers for the following sample(s) was received empty: MW-21 (11-12) (600-54676-2). Small amber 125ml container.

GC/MS VOA

Method(s) 8260B: The following sample was diluted due to high concentration of target analytes and the nature of the sample matrix: MW-21 (14-15) (600-54676-3). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The laboratory control sample (LCS) for batch 79199 exceeded control limits for the following analytes: Chloromethane, Dichlorodifluoromethane and 1,2-Dibromo-3-chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 78887 were outside control limits: (600-54676-7 MS), (600-54676-7 MSD). Matrix interference is suspected.

Method(s) 8260B: The continuing calibration verification (CCV) for Bromoform, trans-1,4-Dichloro-2-butene, and 1,2-Dibromo-3-chloropropane associated with batch 79199 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 8270C LL: The method blank for preparation batch 79176 contained Diethyl phthalate and Butyl benzyl phthalate above the RL and Di-n-butyl phthalate above the method detection limit. Phthalates are recognized potential laboratory contaminants and the appropriate flags have been applied to the report. The sample results associated with this method blank were below the RL; therefore, re-extraction and/or re-analysis was not performed.

Method(s) 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision for batch 79176 were outside control limits. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other analytical or quality issues were noted.

GC Semi VOA

Method(s) TX 1005: The continuing calibration verification (CCV) for >C12-C28 associated with batch 79161 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected range; therefore, the data have been reported.

No other analytical or quality issues were noted.

Metals

Method(s) 6010B: The method blank for batch 78888 contained aluminum, barium, and zinc above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 78888 were outside control limits: (600-54676-3 MS), (600-54676-3 MSD). Matrix interference is suspected.

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Job ID: 600-54676-1 (Continued)

Laboratory: TestAmerica Houston (Continued)

Method(s) 6010B: The serial dilution performed for the following sample(s) associated with batch 78888 was outside control limits:
(600-54676-3 SD)

No other analytical or quality issues were noted.

General Chemistry

No analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (6-7)

Lab Sample ID: 600-54676-1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	55		13	2.2	ug/Kg	1.03	✱	8260B	Total/NA
2-Butanone (MEK)	3.5	J	13	2.5	ug/Kg	1.03	✱	8260B	Total/NA
Isopropylbenzene	5.3	J	6.6	1.2	ug/Kg	1.03	✱	8260B	Total/NA
N-Propylbenzene	10		6.6	1.3	ug/Kg	1.03	✱	8260B	Total/NA
1,2,4-Trimethylbenzene	2.7	J	6.6	1.2	ug/Kg	1.03	✱	8260B	Total/NA
sec-Butylbenzene	1.8	J	6.6	0.93	ug/Kg	1.03	✱	8260B	Total/NA
n-Butylbenzene	2.4	J	6.6	0.77	ug/Kg	1.03	✱	8260B	Total/NA
Naphthalene	40		13	3.1	ug/Kg	1.03	✱	8260B	Total/NA
2-Methylnaphthalene	11	J	22	3.5	ug/Kg	1	✱	8270C LL	Total/NA
Diethyl phthalate	16	J B	22	11	ug/Kg	1	✱	8270C LL	Total/NA
Fluorene	26		22	3.0	ug/Kg	1	✱	8270C LL	Total/NA
Phenanthrene	25		22	6.4	ug/Kg	1	✱	8270C LL	Total/NA
>C12-C28	46		13	5.2	mg/Kg	1	✱	TX 1005	Total/NA
C6-C35	46		13	9.6	mg/Kg	1	✱	TX 1005	Total/NA
Arsenic	4.0		1.2	0.27	mg/Kg	1	✱	6010B	Total/NA
Aluminum	15000	B	31	0.37	mg/Kg	1	✱	6010B	Total/NA
Barium	190	B	1.2	0.037	mg/Kg	1	✱	6010B	Total/NA
Cobalt	4.3		0.62	0.084	mg/Kg	1	✱	6010B	Total/NA
Chromium	13		0.62	0.063	mg/Kg	1	✱	6010B	Total/NA
Copper	8.6		0.62	0.21	mg/Kg	1	✱	6010B	Total/NA
Manganese	270		1.9	0.047	mg/Kg	1	✱	6010B	Total/NA
Nickel	9.8		1.2	0.14	mg/Kg	1	✱	6010B	Total/NA
Lead	12		0.62	0.13	mg/Kg	1	✱	6010B	Total/NA
Vanadium	18		0.62	0.098	mg/Kg	1	✱	6010B	Total/NA
Zinc	28	B	1.9	0.13	mg/Kg	1	✱	6010B	Total/NA
Mercury	6.6	J	64	2.1	ug/Kg	1	✱	7471A	Total/NA

Client Sample ID: MW-21 (11-12)

Lab Sample ID: 600-54676-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	33		10	1.7	ug/Kg	0.89	✱	8260B	Total/NA
1,1-Dichloropropene	5.4		5.0	0.65	ug/Kg	0.89	✱	8260B	Total/NA
Ethylbenzene	3.0	J	5.0	1.0	ug/Kg	0.89	✱	8260B	Total/NA
Styrene	5.7		5.0	0.71	ug/Kg	0.89	✱	8260B	Total/NA
Isopropylbenzene	170		5.0	0.92	ug/Kg	0.89	✱	8260B	Total/NA
1,2,4-Trimethylbenzene	18		5.0	0.92	ug/Kg	0.89	✱	8260B	Total/NA
sec-Butylbenzene	50		5.0	0.70	ug/Kg	0.89	✱	8260B	Total/NA
n-Butylbenzene	77		5.0	0.58	ug/Kg	0.89	✱	8260B	Total/NA
N-Propylbenzene - DL	2100		250	47	ug/Kg	1	✱	8260B	Total/NA
Naphthalene - DL	2600		500	120	ug/Kg	1	✱	8260B	Total/NA
2-Methylnaphthalene	380		19	3.1	ug/Kg	1	✱	8270C LL	Total/NA
Dibenzofuran	50		19	2.0	ug/Kg	1	✱	8270C LL	Total/NA
Fluorene	160		19	2.6	ug/Kg	1	✱	8270C LL	Total/NA
Phenanthrene	140		19	5.5	ug/Kg	1	✱	8270C LL	Total/NA
Fluoranthene	9.4	J	19	3.5	ug/Kg	1	✱	8270C LL	Total/NA
Pyrene	11	J	19	2.0	ug/Kg	1	✱	8270C LL	Total/NA
C6-C12	71		11	4.2	mg/Kg	1	✱	TX 1005	Total/NA
>C12-C28	250		11	4.5	mg/Kg	1	✱	TX 1005	Total/NA
>C28-C35	13		11	4.5	mg/Kg	1	✱	TX 1005	Total/NA
C6-C35	340		11	8.3	mg/Kg	1	✱	TX 1005	Total/NA
Arsenic	3.9		1.1	0.24	mg/Kg	1	✱	6010B	Total/NA
Aluminum	7200	B	27	0.33	mg/Kg	1	✱	6010B	Total/NA
Barium	71	B	1.1	0.033	mg/Kg	1	✱	6010B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (11-12) (Continued)

Lab Sample ID: 600-54676-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil	Fac	D	Method	Prep Type
Cobalt	1.6		0.55	0.074	mg/Kg	1		✱	6010B	Total/NA
Chromium	9.3		0.55	0.056	mg/Kg	1		✱	6010B	Total/NA
Copper	4.7		0.55	0.19	mg/Kg	1		✱	6010B	Total/NA
Manganese	180		1.6	0.042	mg/Kg	1		✱	6010B	Total/NA
Nickel	5.3		1.1	0.13	mg/Kg	1		✱	6010B	Total/NA
Lead	5.8		0.55	0.12	mg/Kg	1		✱	6010B	Total/NA
Vanadium	12		0.55	0.087	mg/Kg	1		✱	6010B	Total/NA
Zinc	14	B	1.6	0.12	mg/Kg	1		✱	6010B	Total/NA

Client Sample ID: MW-21 (14-15)

Lab Sample ID: 600-54676-3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil	Fac	D	Method	Prep Type
Ethylbenzene - DL	7300		220	45	ug/Kg	1		✱	8260B	Total/NA
Isopropylbenzene - DL	1600		220	41	ug/Kg	1		✱	8260B	Total/NA
N-Propylbenzene - DL	3500		220	42	ug/Kg	1		✱	8260B	Total/NA
tert-Butylbenzene - DL	76	J	220	42	ug/Kg	1		✱	8260B	Total/NA
sec-Butylbenzene - DL	570		220	31	ug/Kg	1		✱	8260B	Total/NA
n-Butylbenzene - DL	950		220	26	ug/Kg	1		✱	8260B	Total/NA
Naphthalene - DL	3400		440	100	ug/Kg	1		✱	8260B	Total/NA
2-Methylnaphthalene	820		19	3.1	ug/Kg	1		✱	8270C LL	Total/NA
Dibenzofuran	85		19	2.0	ug/Kg	1		✱	8270C LL	Total/NA
Fluorene	200		19	2.7	ug/Kg	1		✱	8270C LL	Total/NA
Phenanthrene	200		19	5.6	ug/Kg	1		✱	8270C LL	Total/NA
Fluoranthene	11	J	19	3.5	ug/Kg	1		✱	8270C LL	Total/NA
Pyrene	16	J	19	2.1	ug/Kg	1		✱	8270C LL	Total/NA
C6-C12	110		11	4.3	mg/Kg	1		✱	TX 1005	Total/NA
>C12-C28	330		11	4.6	mg/Kg	1		✱	TX 1005	Total/NA
>C28-C35	16		11	4.6	mg/Kg	1		✱	TX 1005	Total/NA
C6-C35	460		11	8.4	mg/Kg	1		✱	TX 1005	Total/NA
Arsenic	6.3		1.1	0.23	mg/Kg	1		✱	6010B	Total/NA
Aluminum	5300	B	27	0.32	mg/Kg	1		✱	6010B	Total/NA
Barium	29	B	1.1	0.032	mg/Kg	1		✱	6010B	Total/NA
Cobalt	2.3		0.54	0.072	mg/Kg	1		✱	6010B	Total/NA
Chromium	6.3		0.54	0.054	mg/Kg	1		✱	6010B	Total/NA
Copper	4.9		0.54	0.19	mg/Kg	1		✱	6010B	Total/NA
Manganese	130		1.6	0.041	mg/Kg	1		✱	6010B	Total/NA
Nickel	5.7		1.1	0.12	mg/Kg	1		✱	6010B	Total/NA
Lead	6.0		0.54	0.11	mg/Kg	1		✱	6010B	Total/NA
Vanadium	16		0.54	0.085	mg/Kg	1		✱	6010B	Total/NA
Zinc	13	B	1.6	0.12	mg/Kg	1		✱	6010B	Total/NA
Mercury	6.2	J	53	1.8	ug/Kg	1		✱	7471A	Total/NA

Client Sample ID: MW-22 (8-10)

Lab Sample ID: 600-54676-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil	Fac	D	Method	Prep Type
Arsenic	2.7		1.2	0.26	mg/Kg	1		✱	6010B	Total/NA
Aluminum	15000	B	30	0.35	mg/Kg	1		✱	6010B	Total/NA
Barium	52	B	1.2	0.035	mg/Kg	1		✱	6010B	Total/NA
Cobalt	4.9		0.59	0.080	mg/Kg	1		✱	6010B	Total/NA
Chromium	12		0.59	0.060	mg/Kg	1		✱	6010B	Total/NA
Copper	7.1		0.59	0.21	mg/Kg	1		✱	6010B	Total/NA
Manganese	240		1.8	0.045	mg/Kg	1		✱	6010B	Total/NA
Nickel	9.8		1.2	0.14	mg/Kg	1		✱	6010B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (8-10) (Continued)

Lab Sample ID: 600-54676-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Lead	10		0.59	0.12	mg/Kg	1	✱	6010B	Total/NA
Vanadium	14		0.59	0.093	mg/Kg	1	✱	6010B	Total/NA
Zinc	29	B	1.8	0.13	mg/Kg	1	✱	6010B	Total/NA

Client Sample ID: MW-22 (12-14)

Lab Sample ID: 600-54676-5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Diethyl phthalate	11	J B	19	9.3	ug/Kg	1	✱	8270C LL	Total/NA
Arsenic	4.4		1.1	0.23	mg/Kg	1	✱	6010B	Total/NA
Aluminum	4900	B	27	0.32	mg/Kg	1	✱	6010B	Total/NA
Barium	23	B	1.1	0.032	mg/Kg	1	✱	6010B	Total/NA
Cobalt	2.6		0.53	0.072	mg/Kg	1	✱	6010B	Total/NA
Chromium	5.8		0.53	0.054	mg/Kg	1	✱	6010B	Total/NA
Copper	4.0		0.53	0.18	mg/Kg	1	✱	6010B	Total/NA
Manganese	140		1.6	0.041	mg/Kg	1	✱	6010B	Total/NA
Nickel	4.4		1.1	0.12	mg/Kg	1	✱	6010B	Total/NA
Lead	5.6		0.53	0.11	mg/Kg	1	✱	6010B	Total/NA
Vanadium	17		0.53	0.084	mg/Kg	1	✱	6010B	Total/NA
Zinc	11	B	1.6	0.12	mg/Kg	1	✱	6010B	Total/NA

Client Sample ID: MW-22 (18-20)

Lab Sample ID: 600-54676-6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.86	J	4.7	0.59	ug/Kg	0.79	✱	8260B	Total/NA
Toluene	1.3	J	4.7	1.3	ug/Kg	0.79	✱	8260B	Total/NA
Isopropylbenzene	25		4.7	0.86	ug/Kg	0.79	✱	8260B	Total/NA
N-Propylbenzene	35		4.7	0.89	ug/Kg	0.79	✱	8260B	Total/NA
tert-Butylbenzene	1.2	J	4.7	0.89	ug/Kg	0.79	✱	8260B	Total/NA
1,2,4-Trimethylbenzene	1.0	J	4.7	0.86	ug/Kg	0.79	✱	8260B	Total/NA
sec-Butylbenzene	7.0		4.7	0.66	ug/Kg	0.79	✱	8260B	Total/NA
n-Butylbenzene	4.3	J	4.7	0.55	ug/Kg	0.79	✱	8260B	Total/NA
Diethyl phthalate	14	J B	20	10	ug/Kg	1	✱	8270C LL	Total/NA
Arsenic	4.5		1.2	0.26	mg/Kg	1	✱	6010B	Total/NA
Aluminum	6700	B	30	0.36	mg/Kg	1	✱	6010B	Total/NA
Barium	58	B	1.2	0.036	mg/Kg	1	✱	6010B	Total/NA
Cobalt	3.6		0.59	0.080	mg/Kg	1	✱	6010B	Total/NA
Chromium	7.3		0.59	0.060	mg/Kg	1	✱	6010B	Total/NA
Copper	4.6		0.59	0.21	mg/Kg	1	✱	6010B	Total/NA
Manganese	190		1.8	0.045	mg/Kg	1	✱	6010B	Total/NA
Nickel	6.4		1.2	0.14	mg/Kg	1	✱	6010B	Total/NA
Lead	5.4		0.59	0.12	mg/Kg	1	✱	6010B	Total/NA
Vanadium	18		0.59	0.094	mg/Kg	1	✱	6010B	Total/NA
Zinc	15	B	1.8	0.13	mg/Kg	1	✱	6010B	Total/NA

Client Sample ID: Dup -1

Lab Sample ID: 600-54676-7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	17		12	2.0	ug/Kg	1.09	✱	8260B	Total/NA
Arsenic	7.0		1.1	0.23	mg/Kg	1	✱	6010B	Total/NA
Aluminum	5600	B	27	0.32	mg/Kg	1	✱	6010B	Total/NA
Barium	29	B	1.1	0.032	mg/Kg	1	✱	6010B	Total/NA
Cobalt	4.2		0.54	0.073	mg/Kg	1	✱	6010B	Total/NA
Chromium	6.5		0.54	0.054	mg/Kg	1	✱	6010B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: Dup -1 (Continued)

Lab Sample ID: 600-54676-7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Copper	6.1		0.54	0.19	mg/Kg	1	✱	6010B	Total/NA
Manganese	160		1.6	0.041	mg/Kg	1	✱	6010B	Total/NA
Nickel	5.7		1.1	0.13	mg/Kg	1	✱	6010B	Total/NA
Lead	12		0.54	0.11	mg/Kg	1	✱	6010B	Total/NA
Vanadium	25		0.54	0.085	mg/Kg	1	✱	6010B	Total/NA
Zinc	15	B	1.6	0.12	mg/Kg	1	✱	6010B	Total/NA

Client Sample ID: Trip Blank

Lab Sample ID: 600-54676-8

No Detections

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (6-7)

Lab Sample ID: 600-54676-1

Date Collected: 05/07/12 09:30

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 77.9

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.0	U	6.6	2.0	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Chloromethane	2.2	U	13	2.2	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Vinyl chloride	1.2	U	13	1.2	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Bromomethane	1.1	U	13	1.1	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Chloroethane	1.9	U	13	1.9	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Trichlorofluoromethane	0.87	U	13	0.87	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,1-Dichloroethene	1.6	U	6.6	1.6	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
trans-1,2-Dichloroethene	1.5	U	6.6	1.5	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Methyl tert-butyl ether	2.4	U	6.6	2.4	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Acetone	55		13	2.2	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Iodomethane	3.3	U	6.6	3.3	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Carbon disulfide	0.73	U	13	0.73	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Methylene Chloride	2.9	U	13	2.9	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
cis-1,2-Dichloroethene	1.1	U	6.6	1.1	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
2-Butanone (MEK)	3.5 J		13	2.5	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Carbon tetrachloride	1.5	U	6.6	1.5	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Benzene	0.83	U	6.6	0.83	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,2-Dichloroethane	1.2	U	6.6	1.2	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Trichloroethene	1.9	U	6.6	1.9	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,1,1-Trichloroethane	0.98	U	6.6	0.98	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,1-Dichloroethane	1.2	U	6.6	1.2	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,2-Dichloropropane	0.94	U	6.6	0.94	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
2,2-Dichloropropane	2.4	U	6.6	2.4	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Dibromomethane	0.99	U	6.6	0.99	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Chloroform	0.87	U	6.6	0.87	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Bromodichloromethane	0.87	U	6.6	0.87	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,1-Dichloropropene	0.86	U	6.6	0.86	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
cis-1,3-Dichloropropene	0.71	U	6.6	0.71	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
4-Methyl-2-pentanone (MIBK)	1.9	U	13	1.9	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Toluene	1.8	U	6.6	1.8	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
trans-1,3-Dichloropropene	0.77	U	6.6	0.77	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,1,2-Trichloroethane	0.97	U	6.6	0.97	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Tetrachloroethene	0.94	U	6.6	0.94	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,3-Dichloropropane	0.83	U	6.6	0.83	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
2-Hexanone	1.3	U	13	1.3	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Dibromochloromethane	1.2	U	6.6	1.2	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,2-Dibromoethane	1.3	U	6.6	1.3	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Chlorobenzene	1.3	U	6.6	1.3	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,1,1,2-Tetrachloroethane	1.9	U	6.6	1.9	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Ethylbenzene	1.3	U	6.6	1.3	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Xylenes, Total	1.5	U	6.6	1.5	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Styrene	0.94	U	6.6	0.94	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Bromoform	1.8	U	6.6	1.8	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Isopropylbenzene	5.3 J		6.6	1.2	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Bromobenzene	1.3	U	6.6	1.3	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,2,3-Trichloropropane	1.7	U	6.6	1.7	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,1,2,2-Tetrachloroethane	1.2	U	6.6	1.2	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
N-Propylbenzene	10		6.6	1.3	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
2-Chlorotoluene	0.90	U	6.6	0.90	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
4-Chlorotoluene	1.1	U	6.6	1.1	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,3,5-Trimethylbenzene	2.1	U	6.6	2.1	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (6-7)

Lab Sample ID: 600-54676-1

Date Collected: 05/07/12 09:30

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 77.9

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	1.3	U	6.6	1.3	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
4-Isopropyltoluene	1.3	U	6.6	1.3	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,2,4-Trimethylbenzene	2.7	J	6.6	1.2	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
sec-Butylbenzene	1.8	J	6.6	0.93	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,3-Dichlorobenzene	0.94	U	6.6	0.94	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,4-Dichlorobenzene	0.87	U	6.6	0.87	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,2-Dichlorobenzene	1.1	U	6.6	1.1	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
n-Butylbenzene	2.4	J	6.6	0.77	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,2-Dibromo-3-Chloropropane	3.2	U	6.6	3.2	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
1,2,4-Trichlorobenzene	2.6	U	6.6	2.6	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Hexachlorobutadiene	1.5	U	6.6	1.5	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03
Naphthalene	40		13	3.1	ug/Kg	☼	05/09/12 09:29	05/09/12 13:29	1.03

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		61 - 130	05/09/12 09:29	05/09/12 13:29	1.03
Dibromofluoromethane	96		68 - 140	05/09/12 09:29	05/09/12 13:29	1.03
Toluene-d8 (Surr)	96		50 - 130	05/09/12 09:29	05/09/12 13:29	1.03
4-Bromofluorobenzene	112		57 - 140	05/09/12 09:29	05/09/12 13:29	1.03

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.8	U	26	3.8	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Phenol	5.4	U	26	5.4	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Bis(2-chloroethyl)ether	2.1	U	26	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2-Chlorophenol	2.5	U	22	2.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Benzyl alcohol	7.5	U	22	7.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Bis(2-chloroisopropyl) ether	11	U	43	11	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
3 & 4 Methylphenol	3.6	U	43	3.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
N-Nitrosodi-n-propylamine	2.8	U	38	2.8	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Hexachloroethane	3.0	U	22	3.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Nitrobenzene	3.8	U	26	3.8	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Isophorone	1.3	U	22	1.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2-Nitrophenol	5.0	U	26	5.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2,4-Dimethylphenol	11	U	32	11	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Bis(2-chloroethoxy)methane	1.8	U	32	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2,4-Dichlorophenol	5.0	U	26	5.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
4-Chloroaniline	7.5	U	51	7.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
4-Chloro-3-methylphenol	20	U	26	20	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2-Methylnaphthalene	11	J	22	3.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Hexachlorocyclopentadiene	5.9	U	22	5.9	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2,4,6-Trichlorophenol	3.4	U	32	3.4	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2,4,5-Trichlorophenol	13	U	32	13	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2-Chloronaphthalene	1.6	U	22	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2-Nitroaniline	6.3	U	26	6.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Dimethyl phthalate	6.3	U	22	6.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Acenaphthylene	1.3	U	22	1.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2,6-Dinitrotoluene	3.8	U	22	3.8	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
3-Nitroaniline	9.2	U	26	9.2	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Acenaphthene	1.8	U	22	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2,4-Dinitrophenol	6.1	U	130	6.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
4-Nitrophenol	6.5	U	260	6.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (6-7)

Lab Sample ID: 600-54676-1

Date Collected: 05/07/12 09:30

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 77.9

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	2.3	U	22	2.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
2,4-Dinitrotoluene	4.6	U	38	4.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Diethyl phthalate	16	J B	22	11	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
4-Chlorophenyl phenyl ether	2.3	U	26	2.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Fluorene	26		22	3.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
4-Nitroaniline	14	U	26	14	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
4,6-Dinitro-2-methylphenol	6.4	U	220	6.4	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
4-Bromophenyl phenyl ether	3.6	U	13	3.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Hexachlorobenzene	2.0	U	22	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Pentachlorophenol	5.1	U	110	5.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Phenanthrene	25		22	6.4	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Anthracene	1.6	U	22	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Di-n-butyl phthalate	3.3	U	26	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Fluoranthene	4.0	U	22	4.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Pyrene	2.3	U	22	2.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Butyl benzyl phthalate	7.9	U	26	7.9	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
3,3'-Dichlorobenzidine	13	U	38	13	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Benzo[a]anthracene	1.8	U	22	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Bis(2-ethylhexyl) phthalate	6.9	U	32	6.9	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Chrysene	1.3	U	22	1.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Di-n-octyl phthalate	2.4	U	38	2.4	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Benzo[b]fluoranthene	2.2	U	38	2.2	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Benzo[k]fluoranthene	1.9	U	38	1.9	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Benzo[a]pyrene	2.1	U	22	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Indeno[1,2,3-cd]pyrene	4.5	U	32	4.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Dibenz(a,h)anthracene	4.7	U	26	4.7	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1
Benzo[g,h,i]perylene	6.5	U	26	6.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	65		23 - 96	05/14/12 11:18	05/14/12 16:09	1
Phenol-d6	68		23 - 99	05/14/12 11:18	05/14/12 16:09	1
Nitrobenzene-d5	67		36 - 98	05/14/12 11:18	05/14/12 16:09	1
2-Fluorobiphenyl	75		48 - 105	05/14/12 11:18	05/14/12 16:09	1
2,4,6-Tribromophenol	69		38 - 111	05/14/12 11:18	05/14/12 16:09	1
Terphenyl-d14	72		56 - 123	05/14/12 11:18	05/14/12 16:09	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.9	U	13	4.9	mg/Kg	☼	05/11/12 11:58	05/11/12 23:45	1
>C12-C28	46		13	5.2	mg/Kg	☼	05/11/12 11:58	05/11/12 23:45	1
>C28-C35	5.2	U	13	5.2	mg/Kg	☼	05/11/12 11:58	05/11/12 23:45	1
C6-C35	46		13	9.6	mg/Kg	☼	05/11/12 11:58	05/11/12 23:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	87		70 - 130	05/11/12 11:58	05/11/12 23:45	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.0		1.2	0.27	mg/Kg	☼	05/09/12 11:50	05/10/12 09:30	1
Aluminum	15000	B	31	0.37	mg/Kg	☼	05/09/12 11:50	05/10/12 09:30	1
Barium	190	B	1.2	0.037	mg/Kg	☼	05/09/12 11:50	05/10/12 09:30	1
Cobalt	4.3		0.62	0.084	mg/Kg	☼	05/09/12 11:50	05/10/12 09:30	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (6-7)

Lab Sample ID: 600-54676-1

Date Collected: 05/07/12 09:30

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 77.9

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	13		0.62	0.063	mg/Kg	☆	05/09/12 11:50	05/10/12 09:30	1
Copper	8.6		0.62	0.21	mg/Kg	☆	05/09/12 11:50	05/10/12 09:30	1
Manganese	270		1.9	0.047	mg/Kg	☆	05/09/12 11:50	05/10/12 09:30	1
Nickel	9.8		1.2	0.14	mg/Kg	☆	05/09/12 11:50	05/10/12 09:30	1
Lead	12		0.62	0.13	mg/Kg	☆	05/09/12 11:50	05/10/12 09:30	1
Selenium	0.32	U	2.5	0.32	mg/Kg	☆	05/09/12 11:50	05/10/12 09:30	1
Thallium	0.34	U	1.9	0.34	mg/Kg	☆	05/09/12 11:50	05/10/12 09:30	1
Vanadium	18		0.62	0.098	mg/Kg	☆	05/09/12 11:50	05/10/12 09:30	1
Zinc	28	B	1.9	0.13	mg/Kg	☆	05/09/12 11:50	05/10/12 09:30	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	6.6	J	64	2.1	ug/Kg	☆	05/10/12 09:31	05/10/12 15:49	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	22		1.0	1.0	%			05/09/12 17:17	1
Percent Solids	78		1.0	1.0	%			05/09/12 17:17	1

Client Sample ID: MW-21 (11-12)

Lab Sample ID: 600-54676-2

Date Collected: 05/07/12 09:35

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 89.3

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.5	U	5.0	1.5	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Chloromethane	1.7	U	10	1.7	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Vinyl chloride	0.90	U	10	0.90	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Bromomethane	0.83	U	10	0.83	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Chloroethane	1.4	U	10	1.4	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Trichlorofluoromethane	0.66	U	10	0.66	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
1,1-Dichloroethene	1.2	U	5.0	1.2	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
trans-1,2-Dichloroethene	1.1	U	5.0	1.1	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Methyl tert-butyl ether	1.8	U	5.0	1.8	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Acetone	33		10	1.7	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Iodomethane	2.5	U	5.0	2.5	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Carbon disulfide	0.55	U	10	0.55	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Methylene Chloride	2.2	U	10	2.2	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
cis-1,2-Dichloroethene	0.83	U	5.0	0.83	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
2-Butanone (MEK)	1.9	U	10	1.9	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Carbon tetrachloride	1.1	U	5.0	1.1	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Benzene	0.63	U	5.0	0.63	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
1,2-Dichloroethane	0.90	U	5.0	0.90	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Trichloroethene	1.4	U	5.0	1.4	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
1,1,1-Trichloroethane	0.74	U	5.0	0.74	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
1,1-Dichloroethane	0.87	U	5.0	0.87	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
1,2-Dichloropropane	0.71	U	5.0	0.71	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
2,2-Dichloropropane	1.8	U	5.0	1.8	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Dibromomethane	0.75	U	5.0	0.75	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Chloroform	0.66	U	5.0	0.66	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
Bromodichloromethane	0.66	U	5.0	0.66	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89
1,1-Dichloropropene	5.4		5.0	0.65	ug/Kg	☆	05/09/12 09:29	05/09/12 15:27	0.89

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (11-12)

Lab Sample ID: 600-54676-2

Date Collected: 05/07/12 09:35

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 89.3

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.54	U	5.0	0.54	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
4-Methyl-2-pentanone (MIBK)	1.5	U	10	1.5	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Toluene	1.4	U	5.0	1.4	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
trans-1,3-Dichloropropene	0.58	U	5.0	0.58	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,1,2-Trichloroethane	0.73	U	5.0	0.73	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Tetrachloroethene	0.71	U	5.0	0.71	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,3-Dichloropropane	0.63	U	5.0	0.63	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
2-Hexanone	1.0	U	10	1.0	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Dibromochloromethane	0.94	U	5.0	0.94	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,2-Dibromoethane	1.0	U	5.0	1.0	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Chlorobenzene	0.96	U	5.0	0.96	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,1,1,2-Tetrachloroethane	1.4	U	5.0	1.4	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Ethylbenzene	3.0	J	5.0	1.0	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Xylenes, Total	1.1	U	5.0	1.1	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Styrene	5.7		5.0	0.71	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Bromoform	1.4	U	5.0	1.4	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Isopropylbenzene	170		5.0	0.92	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Bromobenzene	0.99	U	5.0	0.99	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,2,3-Trichloropropane	1.3	U	5.0	1.3	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,1,2,2-Tetrachloroethane	0.87	U	5.0	0.87	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
2-Chlorotoluene	0.68	U	5.0	0.68	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
4-Chlorotoluene	0.83	U	5.0	0.83	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,3,5-Trimethylbenzene	1.6	U	5.0	1.6	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
tert-Butylbenzene	0.95	U	5.0	0.95	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
4-Isopropyltoluene	1.0	U	5.0	1.0	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,2,4-Trimethylbenzene	18		5.0	0.92	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
sec-Butylbenzene	50		5.0	0.70	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,3-Dichlorobenzene	0.71	U	5.0	0.71	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,4-Dichlorobenzene	0.66	U	5.0	0.66	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,2-Dichlorobenzene	0.80	U	5.0	0.80	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
n-Butylbenzene	77		5.0	0.58	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,2-Dibromo-3-Chloropropane	2.4	U	5.0	2.4	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
1,2,4-Trichlorobenzene	2.0	U	5.0	2.0	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89
Hexachlorobutadiene	1.1	U	5.0	1.1	ug/Kg	☼	05/09/12 09:29	05/09/12 15:27	0.89

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	111		61 - 130	05/09/12 09:29	05/09/12 15:27	0.89
Dibromofluoromethane	95		68 - 140	05/09/12 09:29	05/09/12 15:27	0.89
Toluene-d8 (Surr)	96		50 - 130	05/09/12 09:29	05/09/12 15:27	0.89
4-Bromofluorobenzene	123		57 - 140	05/09/12 09:29	05/09/12 15:27	0.89

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Propylbenzene	2100		250	47	ug/Kg	☼	05/17/12 10:00	05/17/12 20:59	1
Naphthalene	2600		500	120	ug/Kg	☼	05/17/12 10:00	05/17/12 20:59	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	63		61 - 130	05/17/12 10:00	05/17/12 20:59	1
Dibromofluoromethane	69		68 - 140	05/17/12 10:00	05/17/12 20:59	1
Toluene-d8 (Surr)	92		50 - 130	05/17/12 10:00	05/17/12 20:59	1
4-Bromofluorobenzene	99		57 - 140	05/17/12 10:00	05/17/12 20:59	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (11-12)

Lab Sample ID: 600-54676-2

Date Collected: 05/07/12 09:35

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 89.3

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.3	U	22	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Phenol	4.7	U	22	4.7	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Bis(2-chloroethyl)ether	1.8	U	22	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2-Chlorophenol	2.2	U	19	2.2	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Benzyl alcohol	6.5	U	19	6.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Bis(2-chloroisopropyl) ether	9.9	U	37	9.9	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
3 & 4 Methylphenol	3.1	U	37	3.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
N-Nitrosodi-n-propylamine	2.5	U	34	2.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Hexachloroethane	2.6	U	19	2.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Nitrobenzene	3.3	U	22	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Isophorone	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2-Nitrophenol	4.3	U	22	4.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2,4-Dimethylphenol	9.6	U	28	9.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Bis(2-chloroethoxy)methane	1.6	U	28	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2,4-Dichlorophenol	4.3	U	22	4.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
4-Chloroaniline	6.5	U	45	6.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
4-Chloro-3-methylphenol	17	U	22	17	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2-Methylnaphthalene	380		19	3.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Hexachlorocyclopentadiene	5.2	U	19	5.2	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2,4,6-Trichlorophenol	3.0	U	28	3.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2,4,5-Trichlorophenol	11	U	28	11	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2-Chloronaphthalene	1.4	U	19	1.4	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2-Nitroaniline	5.5	U	22	5.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Dimethyl phthalate	5.5	U	19	5.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Acenaphthylene	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2,6-Dinitrotoluene	3.3	U	19	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
3-Nitroaniline	8.0	U	22	8.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Acenaphthene	1.6	U	19	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2,4-Dinitrophenol	5.3	U	110	5.3	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
4-Nitrophenol	5.7	U	220	5.7	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Dibenzofuran	50		19	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
2,4-Dinitrotoluene	4.0	U	34	4.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Diethyl phthalate	9.4	U	19	9.4	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
4-Chlorophenyl phenyl ether	2.0	U	22	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Fluorene	160		19	2.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
4-Nitroaniline	12	U	22	12	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
4,6-Dinitro-2-methylphenol	5.6	U	190	5.6	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
4-Bromophenyl phenyl ether	3.2	U	11	3.2	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Hexachlorobenzene	1.7	U	19	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Pentachlorophenol	4.5	U	93	4.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Phenanthrene	140		19	5.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Anthracene	1.4	U	19	1.4	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Di-n-butyl phthalate	2.9	U	22	2.9	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Fluoranthene	9.4	J	19	3.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Pyrene	11	J	19	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Butyl benzyl phthalate	6.9	U	22	6.9	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
3,3'-Dichlorobenzidine	11	U	34	11	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Benzo[a]anthracene	1.5	U	19	1.5	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Bis(2-ethylhexyl) phthalate	6.0	U	28	6.0	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Chrysene	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Di-n-octyl phthalate	2.1	U	34	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (11-12)

Lab Sample ID: 600-54676-2

Date Collected: 05/07/12 09:35

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 89.3

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	1.9	U	34	1.9	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Benzo[k]fluoranthene	1.7	U	34	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Benzo[a]pyrene	1.8	U	19	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Indeno[1,2,3-cd]pyrene	3.9	U	28	3.9	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Dibenz[a,h]anthracene	4.1	U	22	4.1	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1
Benzo[g,h,i]perylene	5.7	U	22	5.7	ug/Kg	☼	05/14/12 11:18	05/14/12 16:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	62		23 - 96	05/14/12 11:18	05/14/12 16:35	1
Phenol-d6	66		23 - 99	05/14/12 11:18	05/14/12 16:35	1
Nitrobenzene-d5	62		36 - 98	05/14/12 11:18	05/14/12 16:35	1
2-Fluorobiphenyl	68		48 - 105	05/14/12 11:18	05/14/12 16:35	1
2,4,6-Tribromophenol	61		38 - 111	05/14/12 11:18	05/14/12 16:35	1
Terphenyl-d14	65		56 - 123	05/14/12 11:18	05/14/12 16:35	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	71		11	4.2	mg/Kg	☼	05/11/12 11:58	05/12/12 00:20	1
>C12-C28	250		11	4.5	mg/Kg	☼	05/11/12 11:58	05/12/12 00:20	1
>C28-C35	13		11	4.5	mg/Kg	☼	05/11/12 11:58	05/12/12 00:20	1
C6-C35	340		11	8.3	mg/Kg	☼	05/11/12 11:58	05/12/12 00:20	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	98		70 - 130	05/11/12 11:58	05/12/12 00:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	3.9		1.1	0.24	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Aluminum	7200	B	27	0.33	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Barium	71	B	1.1	0.033	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Cobalt	1.6		0.55	0.074	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Chromium	9.3		0.55	0.056	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Copper	4.7		0.55	0.19	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Manganese	180		1.6	0.042	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Nickel	5.3		1.1	0.13	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Lead	5.8		0.55	0.12	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Selenium	0.28	U	2.2	0.28	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Thallium	0.30	U	1.6	0.30	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Vanadium	12		0.55	0.087	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1
Zinc	14	B	1.6	0.12	mg/Kg	☼	05/09/12 11:50	05/10/12 09:34	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.7	U	49	1.7	ug/Kg	☼	05/10/12 09:31	05/10/12 15:55	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		1.0	1.0	%			05/09/12 17:17	1
Percent Solids	89		1.0	1.0	%			05/09/12 17:17	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (14-15)

Lab Sample ID: 600-54676-3

Date Collected: 05/07/12 09:40

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 88.9

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	68	U	220	68	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Chloromethane	74	U	440	74	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Vinyl chloride	40	U	440	40	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Bromomethane	37	U	440	37	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Chloroethane	62	U	440	62	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Trichlorofluoromethane	29	U	440	29	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,1-Dichloroethene	54	U	220	54	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
trans-1,2-Dichloroethene	50	U	220	50	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Methyl tert-butyl ether	81	U	220	81	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Acetone	74	U	440	74	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Iodomethane	110	U	220	110	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Carbon disulfide	24	U	440	24	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Methylene Chloride	97	U	440	97	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
cis-1,2-Dichloroethene	37	U	220	37	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
2-Butanone (MEK)	84	U	440	84	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Carbon tetrachloride	50	U	220	50	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Benzene	28	U	220	28	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,2-Dichloroethane	40	U	220	40	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Trichloroethene	62	U	220	62	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,1,1-Trichloroethane	33	U	220	33	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,1-Dichloroethane	39	U	220	39	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,2-Dichloropropane	31	U	220	31	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
2,2-Dichloropropane	81	U	220	81	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Dibromomethane	33	U	220	33	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Chloroform	29	U	220	29	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Bromodichloromethane	29	U	220	29	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,1-Dichloropropene	29	U	220	29	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
cis-1,3-Dichloropropene	24	U	220	24	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
4-Methyl-2-pentanone (MIBK)	65	U	440	65	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Toluene	61	U	220	61	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
trans-1,3-Dichloropropene	26	U	220	26	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,1,2-Trichloroethane	32	U	1800	32	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Tetrachloroethene	31	U	220	31	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,3-Dichloropropane	28	U	220	28	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
2-Hexanone	45	U	440	45	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Dibromochloromethane	42	U	220	42	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,2-Dibromoethane	45	U	220	45	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Chlorobenzene	43	U	220	43	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,1,1,2-Tetrachloroethane	62	U	220	62	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Ethylbenzene	7300		220	45	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Xylenes, Total	50	U	220	50	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Styrene	31	U	220	31	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Bromoform	61	U	220	61	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Isopropylbenzene	1600		220	41	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Bromobenzene	44	U	220	44	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,2,3-Trichloropropane	58	U	220	58	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,1,2,2-Tetrachloroethane	39	U	220	39	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
N-Propylbenzene	3500		220	42	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
2-Chlorotoluene	30	U	220	30	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
4-Chlorotoluene	37	U	220	37	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,3,5-Trimethylbenzene	71	U	220	71	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (14-15)

Lab Sample ID: 600-54676-3

Date Collected: 05/07/12 09:40

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 88.9

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	76	J	220	42	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
4-Isopropyltoluene	45	U	220	45	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,2,4-Trimethylbenzene	41	U	220	41	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
sec-Butylbenzene	570		220	31	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,3-Dichlorobenzene	31	U	220	31	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,4-Dichlorobenzene	29	U	220	29	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,2-Dichlorobenzene	35	U	220	35	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
n-Butylbenzene	950		220	26	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,2-Dibromo-3-Chloropropane	110	U	220	110	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
1,2,4-Trichlorobenzene	87	U	220	87	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Hexachlorobutadiene	50	U	220	50	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1
Naphthalene	3400		440	100	ug/Kg	☼	05/17/12 10:00	05/17/12 20:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	68		61 - 130	05/17/12 10:00	05/17/12 20:36	1
Dibromofluoromethane	72		68 - 140	05/17/12 10:00	05/17/12 20:36	1
Toluene-d8 (Surr)	95		50 - 130	05/17/12 10:00	05/17/12 20:36	1
4-Bromofluorobenzene	102		57 - 140	05/17/12 10:00	05/17/12 20:36	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.4	U	22	3.4	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Phenol	4.8	U	22	4.8	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Bis(2-chloroethyl)ether	1.9	U	22	1.9	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2-Chlorophenol	2.2	U	19	2.2	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Benzyl alcohol	6.6	U	19	6.6	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Bis(2-chloroisopropyl) ether	9.9	U	37	9.9	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
3 & 4 Methylphenol	3.1	U	37	3.1	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
N-Nitrosodi-n-propylamine	2.5	U	34	2.5	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Hexachloroethane	2.6	U	19	2.6	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Nitrobenzene	3.3	U	22	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Isophorone	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2-Nitrophenol	4.4	U	22	4.4	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2,4-Dimethylphenol	9.7	U	28	9.7	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Bis(2-chloroethoxy)methane	1.6	U	28	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2,4-Dichlorophenol	4.4	U	22	4.4	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
4-Chloroaniline	6.5	U	45	6.5	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
4-Chloro-3-methylphenol	18	U	22	18	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2-Methylnaphthalene	820		19	3.1	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Hexachlorocyclopentadiene	5.2	U	19	5.2	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2,4,6-Trichlorophenol	3.0	U	28	3.0	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2,4,5-Trichlorophenol	11	U	28	11	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2-Chloronaphthalene	1.4	U	19	1.4	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2-Nitroaniline	5.5	U	22	5.5	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Dimethyl phthalate	5.5	U	19	5.5	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Acenaphthylene	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2,6-Dinitrotoluene	3.3	U	19	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
3-Nitroaniline	8.0	U	22	8.0	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Acenaphthene	1.6	U	19	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2,4-Dinitrophenol	5.3	U	110	5.3	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
4-Nitrophenol	5.7	U	220	5.7	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (14-15)

Lab Sample ID: 600-54676-3

Date Collected: 05/07/12 09:40

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 88.9

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	85		19	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
2,4-Dinitrotoluene	4.1	U	34	4.1	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Diethyl phthalate	9.5	U	19	9.5	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
4-Chlorophenyl phenyl ether	2.0	U	22	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Fluorene	200		19	2.7	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
4-Nitroaniline	13	U	22	13	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
4,6-Dinitro-2-methylphenol	5.6	U	190	5.6	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
4-Bromophenyl phenyl ether	3.2	U	11	3.2	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Hexachlorobenzene	1.7	U	19	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Pentachlorophenol	4.5	U	94	4.5	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Phenanthrene	200		19	5.6	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Anthracene	1.4	U	19	1.4	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Di-n-butyl phthalate	2.9	U	22	2.9	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Fluoranthene	11	J	19	3.5	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Pyrene	16	J	19	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Butyl benzyl phthalate	7.0	U	22	7.0	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
3,3'-Dichlorobenzidine	11	U	34	11	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Benzo[a]anthracene	1.6	U	19	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Bis(2-ethylhexyl) phthalate	6.0	U	28	6.0	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Chrysene	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Di-n-octyl phthalate	2.1	U	34	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Benzo[b]fluoranthene	1.9	U	34	1.9	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Benzo[k]fluoranthene	1.7	U	34	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Benzo[a]pyrene	1.8	U	19	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Indeno[1,2,3-cd]pyrene	3.9	U	28	3.9	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Dibenz(a,h)anthracene	4.1	U	22	4.1	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1
Benzo[g,h,i]perylene	5.7	U	22	5.7	ug/Kg	☼	05/14/12 11:18	05/14/12 17:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	70		23 - 96	05/14/12 11:18	05/14/12 17:01	1
Phenol-d6	73		23 - 99	05/14/12 11:18	05/14/12 17:01	1
Nitrobenzene-d5	77		36 - 98	05/14/12 11:18	05/14/12 17:01	1
2-Fluorobiphenyl	73		48 - 105	05/14/12 11:18	05/14/12 17:01	1
2,4,6-Tribromophenol	69		38 - 111	05/14/12 11:18	05/14/12 17:01	1
Terphenyl-d14	73		56 - 123	05/14/12 11:18	05/14/12 17:01	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	110		11	4.3	mg/Kg	☼	05/11/12 11:58	05/12/12 00:55	1
>C12-C28	330		11	4.6	mg/Kg	☼	05/11/12 11:58	05/12/12 00:55	1
>C28-C35	16		11	4.6	mg/Kg	☼	05/11/12 11:58	05/12/12 00:55	1
C6-C35	460		11	8.4	mg/Kg	☼	05/11/12 11:58	05/12/12 00:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	105		70 - 130	05/11/12 11:58	05/12/12 00:55	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.3		1.1	0.23	mg/Kg	☼	05/09/12 11:50	05/10/12 09:38	1
Aluminum	5300	B	27	0.32	mg/Kg	☼	05/09/12 11:50	05/10/12 09:38	1
Barium	29	B	1.1	0.032	mg/Kg	☼	05/09/12 11:50	05/10/12 09:38	1
Cobalt	2.3		0.54	0.072	mg/Kg	☼	05/09/12 11:50	05/10/12 09:38	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (14-15)

Lab Sample ID: 600-54676-3

Date Collected: 05/07/12 09:40

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 88.9

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	6.3		0.54	0.054	mg/Kg	☆	05/09/12 11:50	05/10/12 09:38	1
Copper	4.9		0.54	0.19	mg/Kg	☆	05/09/12 11:50	05/10/12 09:38	1
Manganese	130		1.6	0.041	mg/Kg	☆	05/09/12 11:50	05/10/12 09:38	1
Nickel	5.7		1.1	0.12	mg/Kg	☆	05/09/12 11:50	05/10/12 09:38	1
Lead	6.0		0.54	0.11	mg/Kg	☆	05/09/12 11:50	05/10/12 09:38	1
Selenium	0.28	U	2.1	0.28	mg/Kg	☆	05/09/12 11:50	05/10/12 09:38	1
Thallium	0.30	U	1.6	0.30	mg/Kg	☆	05/09/12 11:50	05/10/12 09:38	1
Vanadium	16		0.54	0.085	mg/Kg	☆	05/09/12 11:50	05/10/12 09:38	1
Zinc	13	B	1.6	0.12	mg/Kg	☆	05/09/12 11:50	05/10/12 09:38	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	6.2	J	53	1.8	ug/Kg	☆	05/10/12 09:31	05/10/12 16:01	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	11		1.0	1.0	%			05/09/12 17:17	1
Percent Solids	89		1.0	1.0	%			05/09/12 17:17	1

Client Sample ID: MW-22 (8-10)

Lab Sample ID: 600-54676-4

Date Collected: 05/07/12 13:45

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 83.8

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	2.0	U	6.5	2.0	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Chloromethane	2.2	U	13	2.2	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Vinyl chloride	1.2	U	13	1.2	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Bromomethane	1.1	U	13	1.1	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Chloroethane	1.8	U	13	1.8	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Trichlorofluoromethane	0.86	U	13	0.86	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
1,1-Dichloroethene	1.6	U	6.5	1.6	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
trans-1,2-Dichloroethene	1.5	U	6.5	1.5	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Methyl tert-butyl ether	2.4	U	6.5	2.4	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Acetone	2.2	U	13	2.2	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Iodomethane	3.3	U	6.5	3.3	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Carbon disulfide	0.72	U	13	0.72	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Methylene Chloride	2.8	U	13	2.8	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
cis-1,2-Dichloroethene	1.1	U	6.5	1.1	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
2-Butanone (MEK)	2.5	U	13	2.5	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Carbon tetrachloride	1.5	U	6.5	1.5	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Benzene	0.82	U	6.5	0.82	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
1,2-Dichloroethane	1.2	U	6.5	1.2	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Trichloroethene	1.8	U	6.5	1.8	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
1,1,1-Trichloroethane	0.96	U	6.5	0.96	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
1,1-Dichloroethane	1.1	U	6.5	1.1	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
1,2-Dichloropropane	0.92	U	6.5	0.92	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
2,2-Dichloropropane	2.4	U	6.5	2.4	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Dibromomethane	0.98	U	6.5	0.98	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Chloroform	0.86	U	6.5	0.86	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
Bromodichloromethane	0.86	U	6.5	0.86	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09
1,1-Dichloropropene	0.85	U	6.5	0.85	ug/Kg	☆	05/09/12 11:30	05/09/12 12:40	1.09

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (8-10)

Lab Sample ID: 600-54676-4

Date Collected: 05/07/12 13:45

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 83.8

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,3-Dichloropropene	0.70	U	6.5	0.70	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
4-Methyl-2-pentanone (MIBK)	1.9	U	13	1.9	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Toluene	1.8	U	6.5	1.8	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
trans-1,3-Dichloropropene	0.75	U	6.5	0.75	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,1,2-Trichloroethane	0.95	U	6.5	0.95	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Tetrachloroethene	0.92	U	6.5	0.92	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,3-Dichloropropane	0.82	U	6.5	0.82	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
2-Hexanone	1.3	U	13	1.3	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Dibromochloromethane	1.2	U	6.5	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,2-Dibromoethane	1.3	U	6.5	1.3	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Chlorobenzene	1.2	U	6.5	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,1,1,2-Tetrachloroethane	1.8	U	6.5	1.8	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Ethylbenzene	1.3	U	6.5	1.3	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Xylenes, Total	1.5	U	6.5	1.5	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Styrene	0.92	U	6.5	0.92	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Bromoform	1.8	U	6.5	1.8	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Isopropylbenzene	1.2	U	6.5	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Bromobenzene	1.3	U	6.5	1.3	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,2,3-Trichloropropane	1.7	U	6.5	1.7	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,1,2,2-Tetrachloroethane	1.1	U	6.5	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
N-Propylbenzene	1.2	U	6.5	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
2-Chlorotoluene	0.88	U	6.5	0.88	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
4-Chlorotoluene	1.1	U	6.5	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,3,5-Trimethylbenzene	2.1	U	6.5	2.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
tert-Butylbenzene	1.2	U	6.5	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
4-Isopropyltoluene	1.3	U	6.5	1.3	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,2,4-Trimethylbenzene	1.2	U	6.5	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
sec-Butylbenzene	0.91	U	6.5	0.91	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,3-Dichlorobenzene	0.92	U	6.5	0.92	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,4-Dichlorobenzene	0.86	U	6.5	0.86	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,2-Dichlorobenzene	1.0	U	6.5	1.0	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
n-Butylbenzene	0.75	U	6.5	0.75	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,2-Dibromo-3-Chloropropane	3.2	U	6.5	3.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
1,2,4-Trichlorobenzene	2.6	U	6.5	2.6	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Hexachlorobutadiene	1.5	U	6.5	1.5	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09
Naphthalene	3.1	U	13	3.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:40	1.09

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		61 - 130	05/09/12 11:30	05/09/12 12:40	1.09
Dibromofluoromethane	98		68 - 140	05/09/12 11:30	05/09/12 12:40	1.09
Toluene-d8 (Surr)	96		50 - 130	05/09/12 11:30	05/09/12 12:40	1.09
4-Bromofluorobenzene	103		57 - 140	05/09/12 11:30	05/09/12 12:40	1.09

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.5	U	24	3.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Phenol	5.0	U	24	5.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Bis(2-chloroethyl)ether	2.0	U	24	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2-Chlorophenol	2.3	U	20	2.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Benzyl alcohol	6.9	U	20	6.9	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Bis(2-chloroisopropyl) ether	11	U	40	11	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (8-10)

Lab Sample ID: 600-54676-4

Date Collected: 05/07/12 13:45

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 83.8

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
3 & 4 Methylphenol	3.3	U	40	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
N-Nitrosodi-n-propylamine	2.6	U	36	2.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Hexachloroethane	2.7	U	20	2.7	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Nitrobenzene	3.5	U	24	3.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Isophorone	1.2	U	20	1.2	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2-Nitrophenol	4.6	U	24	4.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2,4-Dimethylphenol	10	U	30	10	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Bis(2-chloroethoxy)methane	1.7	U	30	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2,4-Dichlorophenol	4.6	U	24	4.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
4-Chloroaniline	6.9	U	48	6.9	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
4-Chloro-3-methylphenol	19	U	24	19	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2-Methylnaphthalene	3.3	U	20	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Hexachlorocyclopentadiene	5.5	U	20	5.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2,4,6-Trichlorophenol	3.2	U	30	3.2	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2,4,5-Trichlorophenol	12	U	30	12	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2-Chloronaphthalene	1.4	U	20	1.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2-Nitroaniline	5.8	U	24	5.8	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Dimethyl phthalate	5.8	U	20	5.8	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Acenaphthylene	1.2	U	20	1.2	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2,6-Dinitrotoluene	3.5	U	20	3.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
3-Nitroaniline	8.5	U	24	8.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Acenaphthene	1.7	U	20	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2,4-Dinitrophenol	5.6	U	120	5.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
4-Nitrophenol	6.0	U	240	6.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Dibenzofuran	2.1	U	20	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
2,4-Dinitrotoluene	4.3	U	36	4.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Diethyl phthalate	10	U	20	10	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
4-Chlorophenyl phenyl ether	2.1	U	24	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Fluorene	2.8	U	20	2.8	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
4-Nitroaniline	13	U	24	13	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
4,6-Dinitro-2-methylphenol	5.9	U	200	5.9	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
4-Bromophenyl phenyl ether	3.4	U	12	3.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Hexachlorobenzene	1.8	U	20	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Pentachlorophenol	4.8	U	99	4.8	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Phenanthrene	5.9	U	20	5.9	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Anthracene	1.5	U	20	1.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Di-n-butyl phthalate	3.1	U	24	3.1	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Fluoranthene	3.7	U	20	3.7	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Pyrene	2.2	U	20	2.2	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Butyl benzyl phthalate	7.4	U	24	7.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
3,3'-Dichlorobenzidine	12	U	36	12	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Benzo[a]anthracene	1.6	U	20	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Bis(2-ethylhexyl) phthalate	6.4	U	30	6.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Chrysene	1.2	U	20	1.2	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Di-n-octyl phthalate	2.3	U	36	2.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Benzo[b]fluoranthene	2.0	U	36	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Benzo[k]fluoranthene	1.8	U	36	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Benzo[a]pyrene	1.9	U	20	1.9	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Indeno[1,2,3-cd]pyrene	4.2	U	30	4.2	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Dibenz(a,h)anthracene	4.3	U	24	4.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1
Benzo[g,h,i]perylene	6.0	U	24	6.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:19	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (8-10)

Lab Sample ID: 600-54676-4

Date Collected: 05/07/12 13:45

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 83.8

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	53		23 - 96	05/14/12 11:18	05/14/12 18:19	1
Phenol-d6	54		23 - 99	05/14/12 11:18	05/14/12 18:19	1
Nitrobenzene-d5	53		36 - 98	05/14/12 11:18	05/14/12 18:19	1
2-Fluorobiphenyl	57		48 - 105	05/14/12 11:18	05/14/12 18:19	1
2,4,6-Tribromophenol	63		38 - 111	05/14/12 11:18	05/14/12 18:19	1
Terphenyl-d14	76		56 - 123	05/14/12 11:18	05/14/12 18:19	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.5	U	12	4.5	mg/Kg	✱	05/11/12 11:58	05/12/12 02:05	1
>C12-C28	4.8	U	12	4.8	mg/Kg	✱	05/11/12 11:58	05/12/12 02:05	1
>C28-C35	4.8	U	12	4.8	mg/Kg	✱	05/11/12 11:58	05/12/12 02:05	1
C6-C35	8.9	U	12	8.9	mg/Kg	✱	05/11/12 11:58	05/12/12 02:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	82		70 - 130	05/11/12 11:58	05/12/12 02:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.7		1.2	0.26	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Aluminum	15000	B	30	0.35	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Barium	52	B	1.2	0.035	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Cobalt	4.9		0.59	0.080	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Chromium	12		0.59	0.060	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Copper	7.1		0.59	0.21	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Manganese	240		1.8	0.045	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Nickel	9.8		1.2	0.14	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Lead	10		0.59	0.12	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Selenium	0.31	U	2.4	0.31	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Thallium	0.33	U	1.8	0.33	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Vanadium	14		0.59	0.093	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1
Zinc	29	B	1.8	0.13	mg/Kg	✱	05/09/12 11:50	05/10/12 09:53	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.0	U	60	2.0	ug/Kg	✱	05/10/12 09:31	05/10/12 16:03	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			05/09/12 17:17	1
Percent Solids	84		1.0	1.0	%			05/09/12 17:17	1

Client Sample ID: MW-22 (12-14)

Lab Sample ID: 600-54676-5

Date Collected: 05/07/12 13:55

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.8	U	5.8	1.8	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Chloromethane	1.9	U	12	1.9	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Vinyl chloride	1.0	U	12	1.0	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Bromomethane	0.96	U	12	0.96	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Chloroethane	1.6	U	12	1.6	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (12-14)

Lab Sample ID: 600-54676-5

Date Collected: 05/07/12 13:55

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	0.77	U	12	0.77	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,1-Dichloroethene	1.4	U	5.8	1.4	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
trans-1,2-Dichloroethene	1.3	U	5.8	1.3	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Methyl tert-butyl ether	2.1	U	5.8	2.1	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Acetone	1.9	U	12	1.9	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Iodomethane	2.9	U	5.8	2.9	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Carbon disulfide	0.64	U	12	0.64	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Methylene Chloride	2.5	U	12	2.5	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
cis-1,2-Dichloroethene	0.96	U	5.8	0.96	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
2-Butanone (MEK)	2.2	U	12	2.2	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Carbon tetrachloride	1.3	U	5.8	1.3	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Benzene	0.73	U	5.8	0.73	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,2-Dichloroethane	1.0	U	5.8	1.0	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Trichloroethene	1.6	U	5.8	1.6	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,1,1-Trichloroethane	0.86	U	5.8	0.86	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,1-Dichloroethane	1.0	U	5.8	1.0	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,2-Dichloropropane	0.82	U	5.8	0.82	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
2,2-Dichloropropane	2.1	U	5.8	2.1	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Dibromomethane	0.87	U	5.8	0.87	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Chloroform	0.77	U	5.8	0.77	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Bromodichloromethane	0.77	U	5.8	0.77	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,1-Dichloropropene	0.75	U	5.8	0.75	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
cis-1,3-Dichloropropene	0.63	U	5.8	0.63	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
4-Methyl-2-pentanone (MIBK)	1.7	U	12	1.7	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Toluene	1.6	U	5.8	1.6	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
trans-1,3-Dichloropropene	0.67	U	5.8	0.67	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,1,2-Trichloroethane	0.85	U	5.8	0.85	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Tetrachloroethene	0.82	U	5.8	0.82	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,3-Dichloropropane	0.73	U	5.8	0.73	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
2-Hexanone	1.2	U	12	1.2	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Dibromochloromethane	1.1	U	5.8	1.1	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,2-Dibromoethane	1.2	U	5.8	1.2	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Chlorobenzene	1.1	U	5.8	1.1	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,1,1,2-Tetrachloroethane	1.6	U	5.8	1.6	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Ethylbenzene	1.2	U	5.8	1.2	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Xylenes, Total	1.3	U	5.8	1.3	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Styrene	0.82	U	5.8	0.82	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Bromoform	1.6	U	5.8	1.6	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Isopropylbenzene	1.1	U	5.8	1.1	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
Bromobenzene	1.1	U	5.8	1.1	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,2,3-Trichloropropane	1.5	U	5.8	1.5	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,1,2,2-Tetrachloroethane	1.0	U	5.8	1.0	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
N-Propylbenzene	1.1	U	5.8	1.1	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
2-Chlorotoluene	0.79	U	5.8	0.79	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
4-Chlorotoluene	0.96	U	5.8	0.96	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,3,5-Trimethylbenzene	1.9	U	5.8	1.9	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
tert-Butylbenzene	1.1	U	5.8	1.1	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
4-Isopropyltoluene	1.2	U	5.8	1.2	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,2,4-Trimethylbenzene	1.1	U	5.8	1.1	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
sec-Butylbenzene	0.81	U	5.8	0.81	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05
1,3-Dichlorobenzene	0.82	U	5.8	0.82	ug/Kg	✱	05/09/12 11:30	05/09/12 13:05	1.05

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (12-14)

Lab Sample ID: 600-54676-5

Date Collected: 05/07/12 13:55

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	0.77	U	5.8	0.77	ug/Kg	☼	05/09/12 11:30	05/09/12 13:05	1.05
1,2-Dichlorobenzene	0.93	U	5.8	0.93	ug/Kg	☼	05/09/12 11:30	05/09/12 13:05	1.05
n-Butylbenzene	0.67	U	5.8	0.67	ug/Kg	☼	05/09/12 11:30	05/09/12 13:05	1.05
1,2-Dibromo-3-Chloropropane	2.8	U	5.8	2.8	ug/Kg	☼	05/09/12 11:30	05/09/12 13:05	1.05
1,2,4-Trichlorobenzene	2.3	U	5.8	2.3	ug/Kg	☼	05/09/12 11:30	05/09/12 13:05	1.05
Hexachlorobutadiene	1.3	U	5.8	1.3	ug/Kg	☼	05/09/12 11:30	05/09/12 13:05	1.05
Naphthalene	2.8	U	12	2.8	ug/Kg	☼	05/09/12 11:30	05/09/12 13:05	1.05

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		61 - 130	05/09/12 11:30	05/09/12 13:05	1.05
Dibromofluoromethane	95		68 - 140	05/09/12 11:30	05/09/12 13:05	1.05
Toluene-d8 (Surr)	98		50 - 130	05/09/12 11:30	05/09/12 13:05	1.05
4-Bromofluorobenzene	104		57 - 140	05/09/12 11:30	05/09/12 13:05	1.05

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.3	U	22	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Phenol	4.7	U	22	4.7	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Bis(2-chloroethyl)ether	1.8	U	22	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2-Chlorophenol	2.2	U	19	2.2	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Benzyl alcohol	6.4	U	19	6.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Bis(2-chloroisopropyl) ether	9.8	U	37	9.8	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
3 & 4 Methylphenol	3.1	U	37	3.1	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
N-Nitrosodi-n-propylamine	2.4	U	33	2.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Hexachloroethane	2.5	U	19	2.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Nitrobenzene	3.3	U	22	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Isophorone	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2-Nitrophenol	4.3	U	22	4.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2,4-Dimethylphenol	9.5	U	28	9.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Bis(2-chloroethoxy)methane	1.6	U	28	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2,4-Dichlorophenol	4.3	U	22	4.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
4-Chloroaniline	6.4	U	44	6.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
4-Chloro-3-methylphenol	17	U	22	17	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2-Methylnaphthalene	3.0	U	19	3.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Hexachlorocyclopentadiene	5.1	U	19	5.1	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2,4,6-Trichlorophenol	3.0	U	28	3.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2,4,5-Trichlorophenol	11	U	28	11	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2-Chloronaphthalene	1.3	U	19	1.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2-Nitroaniline	5.4	U	22	5.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Dimethyl phthalate	5.4	U	19	5.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Acenaphthylene	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2,6-Dinitrotoluene	3.3	U	19	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
3-Nitroaniline	7.9	U	22	7.9	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Acenaphthene	1.6	U	19	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2,4-Dinitrophenol	5.2	U	110	5.2	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
4-Nitrophenol	5.6	U	220	5.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Dibenzofuran	2.0	U	19	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
2,4-Dinitrotoluene	4.0	U	33	4.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Diethyl phthalate	11	J B	19	9.3	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
4-Chlorophenyl phenyl ether	2.0	U	22	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Fluorene	2.6	U	19	2.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (12-14)

Lab Sample ID: 600-54676-5

Date Collected: 05/07/12 13:55

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	12	U	22	12	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
4,6-Dinitro-2-methylphenol	5.5	U	190	5.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
4-Bromophenyl phenyl ether	3.1	U	11	3.1	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Hexachlorobenzene	1.7	U	19	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Pentachlorophenol	4.4	U	92	4.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Phenanthrene	5.5	U	19	5.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Anthracene	1.4	U	19	1.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Di-n-butyl phthalate	2.9	U	22	2.9	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Fluoranthene	3.4	U	19	3.4	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Pyrene	2.0	U	19	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Butyl benzyl phthalate	6.8	U	22	6.8	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
3,3'-Dichlorobenzidine	11	U	33	11	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Benzo[a]anthracene	1.5	U	19	1.5	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Bis(2-ethylhexyl) phthalate	5.9	U	28	5.9	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Chrysene	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Di-n-octyl phthalate	2.1	U	33	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Benzo[b]fluoranthene	1.9	U	33	1.9	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Benzo[k]fluoranthene	1.6	U	33	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Benzo[a]pyrene	1.8	U	19	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Indeno[1,2,3-cd]pyrene	3.9	U	28	3.9	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Dibenz(a,h)anthracene	4.0	U	22	4.0	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1
Benzo[g,h,i]perylene	5.6	U	22	5.6	ug/Kg	☼	05/14/12 11:18	05/14/12 18:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	61		23 - 96	05/14/12 11:18	05/14/12 18:45	1
Phenol-d6	63		23 - 99	05/14/12 11:18	05/14/12 18:45	1
Nitrobenzene-d5	59		36 - 98	05/14/12 11:18	05/14/12 18:45	1
2-Fluorobiphenyl	64		48 - 105	05/14/12 11:18	05/14/12 18:45	1
2,4,6-Tribromophenol	64		38 - 111	05/14/12 11:18	05/14/12 18:45	1
Terphenyl-d14	70		56 - 123	05/14/12 11:18	05/14/12 18:45	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.2	U	11	4.2	mg/Kg	☼	05/11/12 11:58	05/14/12 10:56	1
>C12-C28	4.5	U	11	4.5	mg/Kg	☼	05/11/12 11:58	05/14/12 10:56	1
>C28-C35	4.5	U	11	4.5	mg/Kg	☼	05/11/12 11:58	05/14/12 10:56	1
C6-C35	8.3	U	11	8.3	mg/Kg	☼	05/11/12 11:58	05/14/12 10:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	89		70 - 130	05/11/12 11:58	05/14/12 10:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.4		1.1	0.23	mg/Kg	☼	05/09/12 11:50	05/10/12 09:57	1
Aluminum	4900	B	27	0.32	mg/Kg	☼	05/09/12 11:50	05/10/12 09:57	1
Barium	23	B	1.1	0.032	mg/Kg	☼	05/09/12 11:50	05/10/12 09:57	1
Cobalt	2.6		0.53	0.072	mg/Kg	☼	05/09/12 11:50	05/10/12 09:57	1
Chromium	5.8		0.53	0.054	mg/Kg	☼	05/09/12 11:50	05/10/12 09:57	1
Copper	4.0		0.53	0.18	mg/Kg	☼	05/09/12 11:50	05/10/12 09:57	1
Manganese	140		1.6	0.041	mg/Kg	☼	05/09/12 11:50	05/10/12 09:57	1
Nickel	4.4		1.1	0.12	mg/Kg	☼	05/09/12 11:50	05/10/12 09:57	1
Lead	5.6		0.53	0.11	mg/Kg	☼	05/09/12 11:50	05/10/12 09:57	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (12-14)

Lab Sample ID: 600-54676-5

Date Collected: 05/07/12 13:55

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.28	U	2.1	0.28	mg/Kg	☆	05/09/12 11:50	05/10/12 09:57	1
Thallium	0.29	U	1.6	0.29	mg/Kg	☆	05/09/12 11:50	05/10/12 09:57	1
Vanadium	17		0.53	0.084	mg/Kg	☆	05/09/12 11:50	05/10/12 09:57	1
Zinc	11	B	1.6	0.12	mg/Kg	☆	05/09/12 11:50	05/10/12 09:57	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.7	U	51	1.7	ug/Kg	☆	05/10/12 09:31	05/10/12 16:05	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.6		1.0	1.0	%			05/09/12 17:17	1
Percent Solids	90		1.0	1.0	%			05/09/12 17:17	1

Client Sample ID: MW-22 (18-20)

Lab Sample ID: 600-54676-6

Date Collected: 05/07/12 14:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 84.1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.4	U	4.7	1.4	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Chloromethane	1.6	U	9.4	1.6	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Vinyl chloride	0.85	U	9.4	0.85	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Bromomethane	0.78	U	9.4	0.78	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Chloroethane	1.3	U	9.4	1.3	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Trichlorofluoromethane	0.62	U	9.4	0.62	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
1,1-Dichloroethene	1.1	U	4.7	1.1	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
trans-1,2-Dichloroethene	1.1	U	4.7	1.1	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Methyl tert-butyl ether	1.7	U	4.7	1.7	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Acetone	1.6	U	9.4	1.6	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Iodomethane	2.3	U	4.7	2.3	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Carbon disulfide	0.52	U	9.4	0.52	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Methylene Chloride	2.1	U	9.4	2.1	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
cis-1,2-Dichloroethene	0.78	U	4.7	0.78	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
2-Butanone (MEK)	1.8	U	9.4	1.8	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Carbon tetrachloride	1.1	U	4.7	1.1	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Benzene	0.86	J	4.7	0.59	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
1,2-Dichloroethane	0.85	U	4.7	0.85	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Trichloroethene	1.3	U	4.7	1.3	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
1,1,1-Trichloroethane	0.70	U	4.7	0.70	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
1,1-Dichloroethane	0.82	U	4.7	0.82	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
1,2-Dichloropropane	0.67	U	4.7	0.67	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
2,2-Dichloropropane	1.7	U	4.7	1.7	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Dibromomethane	0.70	U	4.7	0.70	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Chloroform	0.62	U	4.7	0.62	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Bromodichloromethane	0.62	U	4.7	0.62	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
1,1-Dichloropropene	0.61	U	4.7	0.61	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
cis-1,3-Dichloropropene	0.51	U	4.7	0.51	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
4-Methyl-2-pentanone (MIBK)	1.4	U	9.4	1.4	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
Toluene	1.3	J	4.7	1.3	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
trans-1,3-Dichloropropene	0.55	U	4.7	0.55	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79
1,1,2-Trichloroethane	0.69	U	4.7	0.69	ug/Kg	☆	05/09/12 11:30	05/09/12 11:54	0.79

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (18-20)

Lab Sample ID: 600-54676-6

Date Collected: 05/07/12 14:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 84.1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.67	U	4.7	0.67	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,3-Dichloropropane	0.59	U	4.7	0.59	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
2-Hexanone	0.95	U	9.4	0.95	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Dibromochloromethane	0.88	U	4.7	0.88	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,2-Dibromoethane	0.96	U	4.7	0.96	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Chlorobenzene	0.90	U	4.7	0.90	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,1,1,2-Tetrachloroethane	1.3	U	4.7	1.3	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Ethylbenzene	0.96	U	4.7	0.96	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Xylenes, Total	1.1	U	4.7	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Styrene	0.67	U	4.7	0.67	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Bromoform	1.3	U	4.7	1.3	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Isopropylbenzene	25		4.7	0.86	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Bromobenzene	0.93	U	4.7	0.93	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,2,3-Trichloropropane	1.2	U	4.7	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,1,2,2-Tetrachloroethane	0.82	U	4.7	0.82	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
N-Propylbenzene	35		4.7	0.89	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
2-Chlorotoluene	0.64	U	4.7	0.64	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
4-Chlorotoluene	0.78	U	4.7	0.78	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,3,5-Trimethylbenzene	1.5	U	4.7	1.5	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
tert-Butylbenzene	1.2 J		4.7	0.89	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
4-Isopropyltoluene	0.96	U	4.7	0.96	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,2,4-Trimethylbenzene	1.0 J		4.7	0.86	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
sec-Butylbenzene	7.0		4.7	0.66	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,3-Dichlorobenzene	0.67	U	4.7	0.67	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,4-Dichlorobenzene	0.62	U	4.7	0.62	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,2-Dichlorobenzene	0.75	U	4.7	0.75	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
n-Butylbenzene	4.3 J		4.7	0.55	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,2-Dibromo-3-Chloropropane	2.3	U	4.7	2.3	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
1,2,4-Trichlorobenzene	1.9	U	4.7	1.9	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Hexachlorobutadiene	1.1	U	4.7	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79
Naphthalene	2.2	U	9.4	2.2	ug/Kg	☼	05/09/12 11:30	05/09/12 11:54	0.79

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	97		61 - 130	05/09/12 11:30	05/09/12 11:54	0.79
Dibromofluoromethane	97		68 - 140	05/09/12 11:30	05/09/12 11:54	0.79
Toluene-d8 (Surr)	96		50 - 130	05/09/12 11:30	05/09/12 11:54	0.79
4-Bromofluorobenzene	133		57 - 140	05/09/12 11:30	05/09/12 11:54	0.79

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.5	U	24	3.5	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Phenol	5.0	U	24	5.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Bis(2-chloroethyl)ether	2.0	U	24	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2-Chlorophenol	2.3	U	20	2.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Benzyl alcohol	6.9	U	20	6.9	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Bis(2-chloroisopropyl) ether	11	U	40	11	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
3 & 4 Methylphenol	3.3	U	40	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
N-Nitrosodi-n-propylamine	2.6	U	36	2.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Hexachloroethane	2.7	U	20	2.7	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Nitrobenzene	3.5	U	24	3.5	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Isophorone	1.2	U	20	1.2	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (18-20)

Lab Sample ID: 600-54676-6

Date Collected: 05/07/12 14:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 84.1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	4.6	U	24	4.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2,4-Dimethylphenol	10	U	30	10	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Bis(2-chloroethoxy)methane	1.7	U	30	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2,4-Dichlorophenol	4.6	U	24	4.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
4-Chloroaniline	6.9	U	48	6.9	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
4-Chloro-3-methylphenol	19	U	24	19	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2-Methylnaphthalene	3.3	U	20	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Hexachlorocyclopentadiene	5.5	U	20	5.5	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2,4,6-Trichlorophenol	3.2	U	30	3.2	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2,4,5-Trichlorophenol	12	U	30	12	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2-Chloronaphthalene	1.4	U	20	1.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2-Nitroaniline	5.8	U	24	5.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Dimethyl phthalate	5.8	U	20	5.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Acenaphthylene	1.2	U	20	1.2	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2,6-Dinitrotoluene	3.5	U	20	3.5	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
3-Nitroaniline	8.5	U	24	8.5	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Acenaphthene	1.7	U	20	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2,4-Dinitrophenol	5.6	U	120	5.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
4-Nitrophenol	6.0	U	240	6.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Dibenzofuran	2.1	U	20	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
2,4-Dinitrotoluene	4.3	U	36	4.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Diethyl phthalate	14	J B	20	10	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
4-Chlorophenyl phenyl ether	2.1	U	24	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Fluorene	2.8	U	20	2.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
4-Nitroaniline	13	U	24	13	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
4,6-Dinitro-2-methylphenol	5.9	U	200	5.9	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
4-Bromophenyl phenyl ether	3.4	U	12	3.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Hexachlorobenzene	1.8	U	20	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Pentachlorophenol	4.8	U	99	4.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Phenanthrene	5.9	U	20	5.9	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Anthracene	1.5	U	20	1.5	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Di-n-butyl phthalate	3.1	U	24	3.1	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Fluoranthene	3.7	U	20	3.7	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Pyrene	2.2	U	20	2.2	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Butyl benzyl phthalate	7.4	U	24	7.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
3,3'-Dichlorobenzidine	12	U	36	12	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Benzo[a]anthracene	1.6	U	20	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Bis(2-ethylhexyl) phthalate	6.4	U	30	6.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Chrysene	1.2	U	20	1.2	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Di-n-octyl phthalate	2.3	U	36	2.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Benzo[b]fluoranthene	2.0	U	36	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Benzo[k]fluoranthene	1.8	U	36	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Benzo[a]pyrene	1.9	U	20	1.9	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Indeno[1,2,3-cd]pyrene	4.2	U	30	4.2	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Dibenz(a,h)anthracene	4.3	U	24	4.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Benzo[g,h,i]perylene	6.0	U	24	6.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorophenol	64		23 - 96				05/14/12 11:18	05/14/12 19:11	1
Phenol-d6	71		23 - 99				05/14/12 11:18	05/14/12 19:11	1
Nitrobenzene-d5	63		36 - 98				05/14/12 11:18	05/14/12 19:11	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (18-20)

Lab Sample ID: 600-54676-6

Date Collected: 05/07/12 14:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 84.1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	71		48 - 105	05/14/12 11:18	05/14/12 19:11	1
2,4,6-Tribromophenol	68		38 - 111	05/14/12 11:18	05/14/12 19:11	1
Terphenyl-d14	74		56 - 123	05/14/12 11:18	05/14/12 19:11	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.5	U	12	4.5	mg/Kg	☼	05/11/12 11:58	05/14/12 11:30	1
>C12-C28	4.8	U	12	4.8	mg/Kg	☼	05/11/12 11:58	05/14/12 11:30	1
>C28-C35	4.8	U	12	4.8	mg/Kg	☼	05/11/12 11:58	05/14/12 11:30	1
C6-C35	8.8	U	12	8.8	mg/Kg	☼	05/11/12 11:58	05/14/12 11:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	85		70 - 130				05/11/12 11:58	05/14/12 11:30	

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	4.5		1.2	0.26	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Aluminum	6700	B	30	0.36	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Barium	58	B	1.2	0.036	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Cobalt	3.6		0.59	0.080	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Chromium	7.3		0.59	0.060	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Copper	4.6		0.59	0.21	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Manganese	190		1.8	0.045	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Nickel	6.4		1.2	0.14	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Lead	5.4		0.59	0.12	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Selenium	0.31	U	2.4	0.31	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Thallium	0.33	U	1.8	0.33	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Vanadium	18		0.59	0.094	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1
Zinc	15	B	1.8	0.13	mg/Kg	☼	05/09/12 11:50	05/10/12 10:09	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.8	U	55	1.8	ug/Kg	☼	05/10/12 09:31	05/10/12 16:07	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		1.0	1.0	%			05/09/12 17:17	1
Percent Solids	84		1.0	1.0	%			05/09/12 17:17	1

Client Sample ID: Dup -1

Lab Sample ID: 600-54676-7

Date Collected: 05/07/12 00:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.9	U	6.0	1.9	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Chloromethane	2.0	U	12	2.0	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Vinyl chloride	1.1	U	12	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Bromomethane	1.0	U	12	1.0	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Chloroethane	1.7	U	12	1.7	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Trichlorofluoromethane	0.80	U	12	0.80	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,1-Dichloroethene	1.5	U	6.0	1.5	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: Dup -1

Lab Sample ID: 600-54676-7

Date Collected: 05/07/12 00:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	1.4	U	6.0	1.4	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Methyl tert-butyl ether	2.2	U	6.0	2.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Acetone	17		12	2.0	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Iodomethane	3.0	U	6.0	3.0	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Carbon disulfide	0.66	U	12	0.66	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Methylene Chloride	2.6	U	12	2.6	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
cis-1,2-Dichloroethene	1.0	U	6.0	1.0	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
2-Butanone (MEK)	2.3	U	12	2.3	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Carbon tetrachloride	1.4	U	6.0	1.4	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Benzene	0.76	U	6.0	0.76	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,2-Dichloroethane	1.1	U	6.0	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Trichloroethene	1.7	U	6.0	1.7	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,1,1-Trichloroethane	0.89	U	6.0	0.89	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,1-Dichloroethane	1.0	U	6.0	1.0	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,2-Dichloropropane	0.86	U	6.0	0.86	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
2,2-Dichloropropane	2.2	U	6.0	2.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Dibromomethane	0.90	U	6.0	0.90	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Chloroform	0.80	U	6.0	0.80	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Bromodichloromethane	0.80	U	6.0	0.80	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,1-Dichloropropene	0.78	U	6.0	0.78	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
cis-1,3-Dichloropropene	0.65	U	6.0	0.65	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
4-Methyl-2-pentanone (MIBK)	1.8	U	12	1.8	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Toluene	1.7	U	6.0	1.7	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
trans-1,3-Dichloropropene	0.70	U	6.0	0.70	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,1,2-Trichloroethane	0.88	U	6.0	0.88	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Tetrachloroethene	0.86	U	6.0	0.86	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,3-Dichloropropane	0.76	U	6.0	0.76	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
2-Hexanone	1.2	U	12	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Dibromochloromethane	1.1	U	6.0	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,2-Dibromoethane	1.2	U	6.0	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Chlorobenzene	1.2	U	6.0	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,1,1,2-Tetrachloroethane	1.7	U	6.0	1.7	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Ethylbenzene	1.2	U	6.0	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Xylenes, Total	1.4	U	6.0	1.4	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Styrene	0.86	U	6.0	0.86	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Bromoform	1.7	U	6.0	1.7	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Isopropylbenzene	1.1	U	6.0	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Bromobenzene	1.2	U	6.0	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,2,3-Trichloropropane	1.6	U	6.0	1.6	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,1,2,2-Tetrachloroethane	1.0	U	6.0	1.0	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
N-Propylbenzene	1.1	U	6.0	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
2-Chlorotoluene	0.82	U	6.0	0.82	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
4-Chlorotoluene	1.0	U	6.0	1.0	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,3,5-Trimethylbenzene	1.9	U	6.0	1.9	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
tert-Butylbenzene	1.1	U	6.0	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
4-Isopropyltoluene	1.2	U	6.0	1.2	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,2,4-Trimethylbenzene	1.1	U	6.0	1.1	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
sec-Butylbenzene	0.84	U	6.0	0.84	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,3-Dichlorobenzene	0.86	U	6.0	0.86	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,4-Dichlorobenzene	0.80	U	6.0	0.80	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,2-Dichlorobenzene	0.96	U	6.0	0.96	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: Dup -1

Lab Sample ID: 600-54676-7

Date Collected: 05/07/12 00:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
n-Butylbenzene	0.70	U	6.0	0.70	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,2-Dibromo-3-Chloropropane	2.9	U	6.0	2.9	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
1,2,4-Trichlorobenzene	2.4	U	6.0	2.4	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Hexachlorobutadiene	1.4	U	6.0	1.4	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09
Naphthalene	2.9	U	12	2.9	ug/Kg	☼	05/09/12 11:30	05/09/12 12:17	1.09

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		61 - 130	05/09/12 11:30	05/09/12 12:17	1.09
Dibromofluoromethane	96		68 - 140	05/09/12 11:30	05/09/12 12:17	1.09
Toluene-d8 (Surr)	92		50 - 130	05/09/12 11:30	05/09/12 12:17	1.09
4-Bromofluorobenzene	98		57 - 140	05/09/12 11:30	05/09/12 12:17	1.09

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.3	U	22	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Phenol	4.7	U	22	4.7	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Bis(2-chloroethyl)ether	1.8	U	22	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2-Chlorophenol	2.2	U	19	2.2	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Benzyl alcohol	6.4	U	19	6.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Bis(2-chloroisopropyl) ether	9.7	U	37	9.7	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
3 & 4 Methylphenol	3.1	U	37	3.1	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
N-Nitrosodi-n-propylamine	2.4	U	33	2.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Hexachloroethane	2.5	U	19	2.5	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Nitrobenzene	3.3	U	22	3.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Isophorone	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2-Nitrophenol	4.3	U	22	4.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2,4-Dimethylphenol	9.4	U	27	9.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Bis(2-chloroethoxy)methane	1.6	U	27	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2,4-Dichlorophenol	4.3	U	22	4.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
4-Chloroaniline	6.4	U	44	6.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
4-Chloro-3-methylphenol	17	U	22	17	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2-Methylnaphthalene	3.0	U	19	3.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Hexachlorocyclopentadiene	5.1	U	19	5.1	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2,4,6-Trichlorophenol	2.9	U	27	2.9	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2,4,5-Trichlorophenol	11	U	27	11	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2-Chloronaphthalene	1.3	U	19	1.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2-Nitroaniline	5.4	U	22	5.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Dimethyl phthalate	5.4	U	19	5.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Acenaphthylene	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2,6-Dinitrotoluene	3.2	U	19	3.2	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
3-Nitroaniline	7.9	U	22	7.9	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Acenaphthene	1.6	U	19	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2,4-Dinitrophenol	5.2	U	110	5.2	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
4-Nitrophenol	5.6	U	220	5.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Dibenzofuran	2.0	U	19	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
2,4-Dinitrotoluene	4.0	U	33	4.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Diethyl phthalate	9.3	U	19	9.3	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
4-Chlorophenyl phenyl ether	2.0	U	22	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Fluorene	2.6	U	19	2.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
4-Nitroaniline	12	U	22	12	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
4,6-Dinitro-2-methylphenol	5.5	U	190	5.5	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: Dup -1

Lab Sample ID: 600-54676-7

Date Collected: 05/07/12 00:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Bromophenyl phenyl ether	3.1	U	11	3.1	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Hexachlorobenzene	1.7	U	19	1.7	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Pentachlorophenol	4.4	U	92	4.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Phenanthrene	5.4	U	19	5.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Anthracene	1.4	U	19	1.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Di-n-butyl phthalate	2.8	U	22	2.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Fluoranthene	3.4	U	19	3.4	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Pyrene	2.0	U	19	2.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Butyl benzyl phthalate	6.8	U	22	6.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
3,3'-Dichlorobenzidine	11	U	33	11	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Benzo[a]anthracene	1.5	U	19	1.5	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Bis(2-ethylhexyl) phthalate	5.9	U	27	5.9	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Chrysene	1.1	U	19	1.1	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Di-n-octyl phthalate	2.1	U	33	2.1	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Benzo[b]fluoranthene	1.9	U	33	1.9	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Benzo[k]fluoranthene	1.6	U	33	1.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Benzo[a]pyrene	1.8	U	19	1.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Indeno[1,2,3-cd]pyrene	3.8	U	27	3.8	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Dibenz(a,h)anthracene	4.0	U	22	4.0	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1
Benzo[g,h,i]perylene	5.6	U	22	5.6	ug/Kg	☼	05/14/12 11:18	05/14/12 19:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	67		23 - 96	05/14/12 11:18	05/14/12 19:37	1
Phenol-d6	68		23 - 99	05/14/12 11:18	05/14/12 19:37	1
Nitrobenzene-d5	65		36 - 98	05/14/12 11:18	05/14/12 19:37	1
2-Fluorobiphenyl	71		48 - 105	05/14/12 11:18	05/14/12 19:37	1
2,4,6-Tribromophenol	70		38 - 111	05/14/12 11:18	05/14/12 19:37	1
Terphenyl-d14	73		56 - 123	05/14/12 11:18	05/14/12 19:37	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.2	U	11	4.2	mg/Kg	☼	05/11/12 11:58	05/14/12 12:05	1
>C12-C28	4.5	U	11	4.5	mg/Kg	☼	05/11/12 11:58	05/14/12 12:05	1
>C28-C35	4.5	U	11	4.5	mg/Kg	☼	05/11/12 11:58	05/14/12 12:05	1
C6-C35	8.3	U	11	8.3	mg/Kg	☼	05/11/12 11:58	05/14/12 12:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	85		70 - 130	05/11/12 11:58	05/14/12 12:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	7.0		1.1	0.23	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Aluminum	5600	B	27	0.32	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Barium	29	B	1.1	0.032	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Cobalt	4.2		0.54	0.073	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Chromium	6.5		0.54	0.054	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Copper	6.1		0.54	0.19	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Manganese	160		1.6	0.041	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Nickel	5.7		1.1	0.13	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Lead	12		0.54	0.11	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Selenium	0.28	U	2.1	0.28	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Thallium	0.30	U	1.6	0.30	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: Dup -1

Lab Sample ID: 600-54676-7

Date Collected: 05/07/12 00:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	25		0.54	0.085	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1
Zinc	15	B	1.6	0.12	mg/Kg	☼	05/09/12 11:50	05/10/12 10:13	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.8	U	54	1.8	ug/Kg	☼	05/10/12 09:31	05/10/12 16:09	1

General Chemistry

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	9.6		1.0	1.0	%			05/09/12 17:17	1
Percent Solids	90		1.0	1.0	%			05/09/12 17:17	1

Client Sample ID: Trip Blank

Lab Sample ID: 600-54676-8

Date Collected: 05/07/12 00:00

Matrix: Water

Date Received: 05/09/12 09:28

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/14/12 17:36	1
Chloromethane	0.18	U *	2.0	0.18	ug/L			05/14/12 17:36	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/14/12 17:36	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/14/12 17:36	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/14/12 17:36	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/14/12 17:36	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/14/12 17:36	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/14/12 17:36	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/14/12 17:36	1
Acetone	0.99	U	5.0	0.99	ug/L			05/14/12 17:36	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/14/12 17:36	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/14/12 17:36	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/14/12 17:36	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/14/12 17:36	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/14/12 17:36	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/14/12 17:36	1
Benzene	0.080	U	1.0	0.080	ug/L			05/14/12 17:36	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/14/12 17:36	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/14/12 17:36	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/14/12 17:36	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/14/12 17:36	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/14/12 17:36	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/14/12 17:36	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/14/12 17:36	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/14/12 17:36	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/14/12 17:36	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/14/12 17:36	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/14/12 17:36	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/14/12 17:36	1
Toluene	0.15	U	1.0	0.15	ug/L			05/14/12 17:36	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/14/12 17:36	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/14/12 17:36	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/14/12 17:36	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/14/12 17:36	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: Trip Blank

Lab Sample ID: 600-54676-8

Date Collected: 05/07/12 00:00

Matrix: Water

Date Received: 05/09/12 09:28

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/14/12 17:36	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/14/12 17:36	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/14/12 17:36	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/14/12 17:36	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/14/12 17:36	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/14/12 17:36	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/14/12 17:36	1
Styrene	0.070	U	1.0	0.070	ug/L			05/14/12 17:36	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/14/12 17:36	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/14/12 17:36	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/14/12 17:36	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/14/12 17:36	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/14/12 17:36	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/14/12 17:36	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/14/12 17:36	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/14/12 17:36	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/14/12 17:36	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/14/12 17:36	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/14/12 17:36	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/14/12 17:36	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/14/12 17:36	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/14/12 17:36	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/14/12 17:36	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/14/12 17:36	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/14/12 17:36	1
1,2-Dibromo-3-Chloropropane	0.81	U *	1.0	0.81	ug/L			05/14/12 17:36	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/14/12 17:36	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/14/12 17:36	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/14/12 17:36	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139					05/14/12 17:36	1
Dibromofluoromethane	81		62 - 130					05/14/12 17:36	1
Toluene-d8 (Surr)	88		70 - 130					05/14/12 17:36	1
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					05/14/12 17:36	1

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	5.0	1.4	ug/Kg	8260B
1,1,1,2-Tetrachloroethane	1.0	0.18	ug/L	8260B
1,1,1-Trichloroethane	5.0	0.74	ug/Kg	8260B
1,1,1-Trichloroethane	1.0	0.15	ug/L	8260B
1,1,2,2-Tetrachloroethane	5.0	0.87	ug/Kg	8260B
1,1,2,2-Tetrachloroethane	1.0	0.22	ug/L	8260B
1,1,2-Trichloroethane	5.0	0.73	ug/Kg	8260B
1,1,2-Trichloroethane	40	0.73	ug/Kg	8260B
1,1,2-Trichloroethane	1.0	0.28	ug/L	8260B
1,1-Dichloroethane	5.0	0.87	ug/Kg	8260B
1,1-Dichloroethane	1.0	0.11	ug/L	8260B
1,1-Dichloroethene	5.0	1.2	ug/Kg	8260B
1,1-Dichloroethene	1.0	0.19	ug/L	8260B
1,1-Dichloropropene	5.0	0.65	ug/Kg	8260B
1,1-Dichloropropene	1.0	0.21	ug/L	8260B
1,2,3-Trichloropropane	5.0	1.3	ug/Kg	8260B
1,2,3-Trichloropropane	1.0	0.29	ug/L	8260B
1,2,4-Trichlorobenzene	5.0	2.0	ug/Kg	8260B
1,2,4-Trichlorobenzene	1.0	0.31	ug/L	8260B
1,2,4-Trimethylbenzene	5.0	0.92	ug/Kg	8260B
1,2,4-Trimethylbenzene	1.0	0.14	ug/L	8260B
1,2-Dibromo-3-Chloropropane	5.0	2.4	ug/Kg	8260B
1,2-Dibromo-3-Chloropropane	1.0	0.81	ug/L	8260B
1,2-Dibromoethane	5.0	1.0	ug/Kg	8260B
1,2-Dibromoethane	1.0	0.18	ug/L	8260B
1,2-Dichlorobenzene	5.0	0.80	ug/Kg	8260B
1,2-Dichlorobenzene	1.0	0.10	ug/L	8260B
1,2-Dichloroethane	5.0	0.90	ug/Kg	8260B
1,2-Dichloroethane	1.0	0.14	ug/L	8260B
1,2-Dichloropropane	5.0	0.71	ug/Kg	8260B
1,2-Dichloropropane	1.0	0.16	ug/L	8260B
1,3,5-Trimethylbenzene	5.0	1.6	ug/Kg	8260B
1,3,5-Trimethylbenzene	1.0	0.10	ug/L	8260B
1,3-Dichlorobenzene	5.0	0.71	ug/Kg	8260B
1,3-Dichlorobenzene	1.0	0.13	ug/L	8260B
1,3-Dichloropropane	5.0	0.63	ug/Kg	8260B
1,3-Dichloropropane	1.0	0.22	ug/L	8260B
1,4-Dichlorobenzene	5.0	0.66	ug/Kg	8260B
1,4-Dichlorobenzene	1.0	0.11	ug/L	8260B
2,2-Dichloropropane	5.0	1.8	ug/Kg	8260B
2,2-Dichloropropane	1.0	0.13	ug/L	8260B
2-Butanone (MEK)	10	1.9	ug/Kg	8260B
2-Butanone (MEK)	2.0	0.76	ug/L	8260B
2-Chlorotoluene	5.0	0.68	ug/Kg	8260B
2-Chlorotoluene	1.0	0.13	ug/L	8260B
2-Hexanone	10	1.0	ug/Kg	8260B
2-Hexanone	2.0	0.35	ug/L	8260B
4-Chlorotoluene	5.0	0.83	ug/Kg	8260B
4-Chlorotoluene	1.0	0.14	ug/L	8260B
4-Isopropyltoluene	5.0	1.0	ug/Kg	8260B
4-Isopropyltoluene	1.0	0.10	ug/L	8260B
4-Methyl-2-pentanone (MIBK)	10	1.5	ug/Kg	8260B
4-Methyl-2-pentanone (MIBK)	2.0	0.45	ug/L	8260B

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	MQL	MDL	Units	Method
Acetone	10	1.7	ug/Kg	8260B
Acetone	5.0	0.99	ug/L	8260B
Benzene	5.0	0.63	ug/Kg	8260B
Benzene	1.0	0.080	ug/L	8260B
Bromobenzene	5.0	0.99	ug/Kg	8260B
Bromobenzene	1.0	0.19	ug/L	8260B
Bromodichloromethane	5.0	0.66	ug/Kg	8260B
Bromodichloromethane	1.0	0.16	ug/L	8260B
Bromoform	5.0	1.4	ug/Kg	8260B
Bromoform	1.0	0.19	ug/L	8260B
Bromomethane	10	0.83	ug/Kg	8260B
Bromomethane	2.0	0.25	ug/L	8260B
Carbon disulfide	10	0.55	ug/Kg	8260B
Carbon disulfide	2.0	0.24	ug/L	8260B
Carbon tetrachloride	5.0	1.1	ug/Kg	8260B
Carbon tetrachloride	1.0	0.15	ug/L	8260B
Chlorobenzene	5.0	0.96	ug/Kg	8260B
Chlorobenzene	1.0	0.12	ug/L	8260B
Chloroethane	10	1.4	ug/Kg	8260B
Chloroethane	2.0	0.080	ug/L	8260B
Chloroform	5.0	0.66	ug/Kg	8260B
Chloroform	1.0	0.13	ug/L	8260B
Chloromethane	10	1.7	ug/Kg	8260B
Chloromethane	2.0	0.18	ug/L	8260B
cis-1,2-Dichloroethene	5.0	0.83	ug/Kg	8260B
cis-1,2-Dichloroethene	1.0	0.060	ug/L	8260B
cis-1,3-Dichloropropene	5.0	0.54	ug/Kg	8260B
cis-1,3-Dichloropropene	1.0	0.18	ug/L	8260B
Dibromochloromethane	5.0	0.94	ug/Kg	8260B
Dibromochloromethane	1.0	0.15	ug/L	8260B
Dibromomethane	5.0	0.75	ug/Kg	8260B
Dibromomethane	1.0	0.52	ug/L	8260B
Dichlorodifluoromethane	5.0	1.5	ug/Kg	8260B
Dichlorodifluoromethane	1.0	0.12	ug/L	8260B
Ethylbenzene	5.0	1.0	ug/Kg	8260B
Ethylbenzene	1.0	0.11	ug/L	8260B
Hexachlorobutadiene	5.0	1.1	ug/Kg	8260B
Hexachlorobutadiene	1.0	0.17	ug/L	8260B
Iodomethane	5.0	2.5	ug/Kg	8260B
Iodomethane	2.0	2.0	ug/L	8260B
Isopropylbenzene	5.0	0.92	ug/Kg	8260B
Isopropylbenzene	1.0	0.18	ug/L	8260B
Methyl tert-butyl ether	5.0	1.8	ug/Kg	8260B
Methyl tert-butyl ether	1.0	0.12	ug/L	8260B
Methylene Chloride	10	2.2	ug/Kg	8260B
Methylene Chloride	5.0	0.15	ug/L	8260B
Naphthalene	10	2.4	ug/Kg	8260B
Naphthalene	1.0	0.32	ug/L	8260B
n-Butylbenzene	5.0	0.58	ug/Kg	8260B
n-Butylbenzene	1.0	0.16	ug/L	8260B
N-Propylbenzene	5.0	0.95	ug/Kg	8260B
N-Propylbenzene	1.0	0.15	ug/L	8260B
sec-Butylbenzene	5.0	0.70	ug/Kg	8260B

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	MQL	MDL	Units	Method
sec-Butylbenzene	1.0	0.12	ug/L	8260B
Styrene	5.0	0.71	ug/Kg	8260B
Styrene	1.0	0.070	ug/L	8260B
tert-Butylbenzene	5.0	0.95	ug/Kg	8260B
tert-Butylbenzene	1.0	0.080	ug/L	8260B
Tetrachloroethene	5.0	0.71	ug/Kg	8260B
Tetrachloroethene	1.0	0.13	ug/L	8260B
Toluene	5.0	1.4	ug/Kg	8260B
Toluene	1.0	0.15	ug/L	8260B
trans-1,2-Dichloroethene	5.0	1.1	ug/Kg	8260B
trans-1,2-Dichloroethene	1.0	0.090	ug/L	8260B
trans-1,3-Dichloropropene	5.0	0.58	ug/Kg	8260B
trans-1,3-Dichloropropene	1.0	0.21	ug/L	8260B
Trichloroethene	5.0	1.4	ug/Kg	8260B
Trichloroethene	1.0	0.18	ug/L	8260B
Trichlorofluoromethane	10	0.66	ug/Kg	8260B
Trichlorofluoromethane	1.0	0.080	ug/L	8260B
Vinyl chloride	10	0.90	ug/Kg	8260B
Vinyl chloride	2.0	0.11	ug/L	8260B
Xylenes, Total	5.0	1.1	ug/Kg	8260B
Xylenes, Total	1.0	0.26	ug/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
2,4,5-Trichlorophenol	25	10	ug/Kg	8270C LL
2,4,6-Trichlorophenol	25	2.7	ug/Kg	8270C LL
2,4-Dichlorophenol	20	3.9	ug/Kg	8270C LL
2,4-Dimethylphenol	25	8.6	ug/Kg	8270C LL
2,4-Dinitrophenol	100	4.7	ug/Kg	8270C LL
2,4-Dinitrotoluene	30	3.6	ug/Kg	8270C LL
2,6-Dinitrotoluene	17	3.0	ug/Kg	8270C LL
2-Chloronaphthalene	17	1.2	ug/Kg	8270C LL
2-Chlorophenol	17	2.0	ug/Kg	8270C LL
2-Methylnaphthalene	17	2.7	ug/Kg	8270C LL
2-Nitroaniline	20	4.9	ug/Kg	8270C LL
2-Nitrophenol	20	3.9	ug/Kg	8270C LL
3 & 4 Methylphenol	33	2.8	ug/Kg	8270C LL
3,3'-Dichlorobenzidine	30	10	ug/Kg	8270C LL
3-Nitroaniline	20	7.2	ug/Kg	8270C LL
4,6-Dinitro-2-methylphenol	170	5.0	ug/Kg	8270C LL
4-Bromophenyl phenyl ether	10	2.8	ug/Kg	8270C LL
4-Chloro-3-methylphenol	20	16	ug/Kg	8270C LL
4-Chloroaniline	40	5.8	ug/Kg	8270C LL
4-Chlorophenyl phenyl ether	20	1.8	ug/Kg	8270C LL
4-Nitroaniline	20	11	ug/Kg	8270C LL
4-Nitrophenol	200	5.1	ug/Kg	8270C LL
Acenaphthene	17	1.4	ug/Kg	8270C LL
Acenaphthylene	17	1.0	ug/Kg	8270C LL
Aniline	20	3.0	ug/Kg	8270C LL
Anthracene	17	1.3	ug/Kg	8270C LL
Benzo[a]anthracene	17	1.4	ug/Kg	8270C LL
Benzo[a]pyrene	17	1.6	ug/Kg	8270C LL

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	MQL	MDL	Units	Method
Benzo[b]fluoranthene	30	1.7	ug/Kg	8270C LL
Benzo[g,h,i]perylene	20	5.1	ug/Kg	8270C LL
Benzo[k]fluoranthene	30	1.5	ug/Kg	8270C LL
Benzyl alcohol	17	5.8	ug/Kg	8270C LL
Bis(2-chloroethoxy)methane	25	1.4	ug/Kg	8270C LL
Bis(2-chloroethyl)ether	20	1.7	ug/Kg	8270C LL
Bis(2-chloroisopropyl) ether	33	8.8	ug/Kg	8270C LL
Bis(2-ethylhexyl) phthalate	25	5.4	ug/Kg	8270C LL
Butyl benzyl phthalate	20	6.2	ug/Kg	8270C LL
Chrysene	17	1.0	ug/Kg	8270C LL
Dibenz(a,h)anthracene	20	3.6	ug/Kg	8270C LL
Dibenzofuran	17	1.8	ug/Kg	8270C LL
Diethyl phthalate	17	8.4	ug/Kg	8270C LL
Dimethyl phthalate	17	4.9	ug/Kg	8270C LL
Di-n-butyl phthalate	20	2.6	ug/Kg	8270C LL
Di-n-octyl phthalate	30	1.9	ug/Kg	8270C LL
Fluoranthene	17	3.1	ug/Kg	8270C LL
Fluorene	17	2.4	ug/Kg	8270C LL
Hexachlorobenzene	17	1.5	ug/Kg	8270C LL
Hexachlorocyclopentadiene	17	4.6	ug/Kg	8270C LL
Hexachloroethane	17	2.3	ug/Kg	8270C LL
Indeno[1,2,3-cd]pyrene	25	3.5	ug/Kg	8270C LL
Isophorone	17	1.0	ug/Kg	8270C LL
Nitrobenzene	20	3.0	ug/Kg	8270C LL
N-Nitrosodi-n-propylamine	30	2.2	ug/Kg	8270C LL
Pentachlorophenol	83	4.0	ug/Kg	8270C LL
Phenanthrene	17	5.0	ug/Kg	8270C LL
Phenol	20	4.2	ug/Kg	8270C LL
Pyrene	17	1.8	ug/Kg	8270C LL

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	MQL	MDL	Units	Method
>C12-C28	10	4.1	mg/Kg	TX 1005
>C28-C35	10	4.1	mg/Kg	TX 1005
C6-C12	10	3.8	mg/Kg	TX 1005
C6-C35	10	7.5	mg/Kg	TX 1005

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Aluminum	25	0.30	mg/Kg	6010B
Arsenic	1.0	0.22	mg/Kg	6010B
Barium	1.0	0.030	mg/Kg	6010B
Chromium	0.50	0.051	mg/Kg	6010B
Cobalt	0.50	0.068	mg/Kg	6010B
Copper	0.50	0.17	mg/Kg	6010B
Lead	0.50	0.10	mg/Kg	6010B
Manganese	1.5	0.038	mg/Kg	6010B
Nickel	1.0	0.12	mg/Kg	6010B
Selenium	2.0	0.26	mg/Kg	6010B
Thallium	1.5	0.28	mg/Kg	6010B
Vanadium	0.50	0.079	mg/Kg	6010B

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 6010B - Metals (ICP) (Continued)

Analyte	MQL	MDL	Units	Method
Zinc	1.5	0.11	mg/Kg	6010B

Method: 7471A - Mercury (CVAA)

Analyte	MQL	MDL	Units	Method
Mercury	50	1.7	ug/Kg	7471A

General Chemistry

Analyte	MQL	MDL	Units	Method
Percent Moisture	1.0	1.0	%	Moisture
Percent Solids	1.0	1.0	%	Moisture

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		12DCE (61-130)	DBFM (68-140)	TOL (50-130)	BFB (57-140)
600-54676-1	MW-21 (6-7)	93	96	96	112
600-54676-2	MW-21 (11-12)	111	95	96	123
600-54676-2 - DL	MW-21 (11-12)	63	69	92	99
600-54676-3 - DL	MW-21 (14-15)	68	72	95	102
600-54676-4	MW-22 (8-10)	96	98	96	103
600-54676-5	MW-22 (12-14)	95	95	98	104
600-54676-6	MW-22 (18-20)	97	97	96	133
600-54676-7	Dup -1	93	96	92	98
600-54676-7 MS	Dup -1	80	94	103	105
600-54676-7 MSD	Dup -1	75	93	97	103
LCS 600-78972/3	Lab Control Sample	78	86	92	94
LCS 600-79457/1-A	Lab Control Sample	70	80	92	95
LCSD 600-79457/2-A	Lab Control Sample Dup	69	78	92	96
MB 600-78972/4	Method Blank	89	90	92	98
MB 600-79457/3-A	Method Blank	62	76	87	90

Surrogate Legend

12DCE = 1,2-Dichloroethane-d4 (Surr)

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

BFB = 4-Bromofluorobenzene

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-54676-8	Trip Blank	94	81	88	79
LCS 600-79199/3	Lab Control Sample	101	91	89	82
MB 600-79199/4	Method Blank	99	88	90	85

Surrogate Legend

BFB = 4-Bromofluorobenzene

DBFM = Dibromofluoromethane

TOL = Toluene-d8 (Surr)

12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (23-96)	PHL (23-99)	NBZ (36-98)	FBP (48-105)	TBP (38-111)	TPH (56-123)
600-54676-1	MW-21 (6-7)	65	68	67	75	69	72
600-54676-2	MW-21 (11-12)	62	66	62	68	61	65
600-54676-3	MW-21 (14-15)	70	73	77	73	69	73
600-54676-3 MS	MW-21 (14-15)	70	72	76	74	79	73
600-54676-3 MSD	MW-21 (14-15)	74	80	86	80	82	76
600-54676-4	MW-22 (8-10)	53	54	53	57	63	76
600-54676-5	MW-22 (12-14)	61	63	59	64	64	70

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (23-96)	PHL (23-99)	NBZ (36-98)	FBP (48-105)	TBP (38-111)	TPH (56-123)
600-54676-6	MW-22 (18-20)	64	71	63	71	68	74
600-54676-7	Dup -1	67	68	65	71	70	73
LCS 600-79176/2-A	Lab Control Sample	67	74	70	77	78	79
MB 600-79176/1-A	Method Blank	68	69	66	75	63	76
Surrogate Legend							
2FP = 2-Fluorophenol							
PHL = Phenol-d6							
NBZ = Nitrobenzene-d5							
FBP = 2-Fluorobiphenyl							
TBP = 2,4,6-Tribromophenol							
TPH = Terphenyl-d14							

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		OTPH (70-130)					
600-54676-1	MW-21 (6-7)	87					
600-54676-2	MW-21 (11-12)	98					
600-54676-3	MW-21 (14-15)	105					
600-54676-4	MW-22 (8-10)	82					
600-54676-5	MW-22 (12-14)	89					
600-54676-6	MW-22 (18-20)	85					
600-54676-7	Dup -1	85					
LCS 600-79083/2-A	Lab Control Sample	107					
MB 600-79083/1-A	Method Blank	87					
Surrogate Legend							
OTPH = o-Terphenyl							

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: 600-54676-7 MS

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Dup -1

Prep Type: Total/NA

Prep Batch: 78887

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	1.9	U	55.3	78.9	F	ug/Kg	✱	143	60 - 140
Chloromethane	2.0	U	55.3	52.9		ug/Kg	✱	96	60 - 140
Vinyl chloride	1.1	U	55.3	48.8		ug/Kg	✱	88	60 - 140
Bromomethane	1.0	U	55.3	47.8		ug/Kg	✱	86	60 - 140
Chloroethane	1.7	U	55.3	47.4		ug/Kg	✱	86	60 - 140
Trichlorofluoromethane	0.80	U	55.3	47.9		ug/Kg	✱	87	60 - 140
1,1-Dichloroethene	1.5	U	55.3	50.3		ug/Kg	✱	91	65 - 135
trans-1,2-Dichloroethene	1.4	U	55.3	53.6		ug/Kg	✱	97	60 - 140
Methyl tert-butyl ether	2.2	U	55.3	45.1		ug/Kg	✱	81	60 - 140
Acetone	17		111	81.8	F	ug/Kg	✱	58	60 - 140
Iodomethane	3.0	U	55.3	50.7		ug/Kg	✱	92	60 - 140
Carbon disulfide	0.66	U	55.3	49.5		ug/Kg	✱	90	60 - 140
Methylene Chloride	2.6	U	55.3	47.4		ug/Kg	✱	86	60 - 140
cis-1,2-Dichloroethene	1.0	U	55.3	49.9		ug/Kg	✱	90	60 - 140
2-Butanone (MEK)	2.3	U	111	80.3		ug/Kg	✱	73	60 - 140
Carbon tetrachloride	1.4	U	55.3	50.0		ug/Kg	✱	90	60 - 140
Benzene	0.76	U	55.3	52.3		ug/Kg	✱	95	65 - 135
1,2-Dichloroethane	1.1	U	55.3	48.1		ug/Kg	✱	87	60 - 140
Trichloroethene	1.7	U	55.3	56.3		ug/Kg	✱	102	61 - 135
1,1,1-Trichloroethane	0.89	U	55.3	48.8		ug/Kg	✱	88	60 - 140
1,1-Dichloroethane	1.0	U	55.3	52.7		ug/Kg	✱	95	60 - 140
1,2-Dichloropropane	0.86	U	55.3	52.7		ug/Kg	✱	95	60 - 140
2,2-Dichloropropane	2.2	U	55.3	35.6		ug/Kg	✱	64	60 - 140
Dibromomethane	0.90	U	55.3	47.3		ug/Kg	✱	86	60 - 140
Chloroform	0.80	U	55.3	51.5		ug/Kg	✱	93	60 - 140
Bromodichloromethane	0.80	U	55.3	49.2		ug/Kg	✱	89	60 - 140
1,1-Dichloropropene	0.78	U	55.3	53.8		ug/Kg	✱	97	60 - 140
cis-1,3-Dichloropropene	0.65	U	55.3	53.0		ug/Kg	✱	96	60 - 140
4-Methyl-2-pentanone (MIBK)	1.8	U	111	90.3		ug/Kg	✱	82	60 - 140
Toluene	1.7	U	55.3	51.1		ug/Kg	✱	92	64 - 135
trans-1,3-Dichloropropene	0.70	U	55.3	55.2		ug/Kg	✱	100	60 - 140
1,1,2-Trichloroethane	0.88	U	55.3	48.0		ug/Kg	✱	87	60 - 140
Tetrachloroethene	0.86	U	55.3	93.7	F	ug/Kg	✱	169	60 - 140
1,3-Dichloropropane	0.76	U	55.3	47.0		ug/Kg	✱	85	60 - 140
2-Hexanone	1.2	U	111	79.9		ug/Kg	✱	72	60 - 140
Dibromochloromethane	1.1	U	55.3	47.9		ug/Kg	✱	87	60 - 140
1,2-Dibromoethane	1.2	U	55.3	44.6		ug/Kg	✱	81	60 - 140
Chlorobenzene	1.2	U	55.3	52.9		ug/Kg	✱	96	65 - 135
1,1,1,2-Tetrachloroethane	1.7	U	55.3	52.5		ug/Kg	✱	95	60 - 140
Ethylbenzene	1.2	U	55.3	52.3		ug/Kg	✱	95	60 - 140
Xylenes, Total	1.4	U	166	155		ug/Kg	✱	93	60 - 140
Styrene	0.86	U	55.3	54.2		ug/Kg	✱	98	60 - 140
Bromoform	1.7	U	55.3	39.3		ug/Kg	✱	71	60 - 140
Isopropylbenzene	1.1	U	55.3	59.2		ug/Kg	✱	107	60 - 140
Bromobenzene	1.2	U	55.3	51.5		ug/Kg	✱	93	60 - 140
1,2,3-Trichloropropane	1.6	U	55.3	38.1		ug/Kg	✱	69	60 - 140
1,1,2,2-Tetrachloroethane	1.0	U	55.3	37.6		ug/Kg	✱	68	60 - 140
N-Propylbenzene	1.1	U	55.3	52.1		ug/Kg	✱	94	60 - 140
2-Chlorotoluene	0.82	U	55.3	51.3		ug/Kg	✱	93	60 - 140

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-54676-7 MS

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Dup -1

Prep Type: Total/NA

Prep Batch: 78887

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	1.0	U	55.3	53.5		ug/Kg	✱	97	60 - 140
1,3,5-Trimethylbenzene	1.9	U	55.3	49.7		ug/Kg	✱	90	60 - 140
tert-Butylbenzene	1.1	U	55.3	53.1		ug/Kg	✱	96	60 - 140
4-Isopropyltoluene	1.2	U	55.3	55.4		ug/Kg	✱	100	60 - 140
1,2,4-Trimethylbenzene	1.1	U	55.3	51.0		ug/Kg	✱	92	60 - 140
sec-Butylbenzene	0.84	U	55.3	51.9		ug/Kg	✱	94	60 - 140
1,3-Dichlorobenzene	0.86	U	55.3	53.1		ug/Kg	✱	96	60 - 140
1,4-Dichlorobenzene	0.80	U	55.3	52.6		ug/Kg	✱	95	60 - 140
1,2-Dichlorobenzene	0.96	U	55.3	51.6		ug/Kg	✱	93	60 - 140
n-Butylbenzene	0.70	U	55.3	52.4		ug/Kg	✱	95	60 - 140
1,2-Dibromo-3-Chloropropane	2.9	U	55.3	30.7	F	ug/Kg	✱	55	60 - 140
1,2,4-Trichlorobenzene	2.4	U	55.3	52.3		ug/Kg	✱	95	60 - 140
Hexachlorobutadiene	1.4	U	55.3	56.8		ug/Kg	✱	103	60 - 140
Naphthalene	2.9	U	55.3	39.6		ug/Kg	✱	72	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	80		61 - 130
Dibromofluoromethane	94		68 - 140
Toluene-d8 (Surr)	103		50 - 130
4-Bromofluorobenzene	105		57 - 140

Lab Sample ID: 600-54676-7 MSD

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Dup -1

Prep Type: Total/NA

Prep Batch: 78887

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	1.9	U	55.3	72.4		ug/Kg	✱	131	60 - 140	9	30
Chloromethane	2.0	U	55.3	52.4		ug/Kg	✱	95	60 - 140	1	30
Vinyl chloride	1.1	U	55.3	47.9		ug/Kg	✱	87	60 - 140	2	30
Bromomethane	1.0	U	55.3	46.6		ug/Kg	✱	84	60 - 140	3	30
Chloroethane	1.7	U	55.3	45.4		ug/Kg	✱	82	60 - 140	4	30
Trichlorofluoromethane	0.80	U	55.3	47.3		ug/Kg	✱	86	60 - 140	1	30
1,1-Dichloroethene	1.5	U	55.3	50.4		ug/Kg	✱	91	65 - 135	0	30
trans-1,2-Dichloroethene	1.4	U	55.3	51.9		ug/Kg	✱	94	60 - 140	3	30
Methyl tert-butyl ether	2.2	U	55.3	42.3		ug/Kg	✱	76	60 - 140	6	30
Acetone	17		111	63.9	F	ug/Kg	✱	42	60 - 140	25	30
Iodomethane	3.0	U	55.3	48.5		ug/Kg	✱	88	60 - 140	4	30
Carbon disulfide	0.66	U	55.3	49.0		ug/Kg	✱	89	60 - 140	1	30
Methylene Chloride	2.6	U	55.3	44.2		ug/Kg	✱	80	60 - 140	7	30
cis-1,2-Dichloroethene	1.0	U	55.3	48.4		ug/Kg	✱	87	60 - 140	3	30
2-Butanone (MEK)	2.3	U	111	59.5	F	ug/Kg	✱	54	60 - 140	30	30
Carbon tetrachloride	1.4	U	55.3	47.4		ug/Kg	✱	86	60 - 140	5	30
Benzene	0.76	U	55.3	49.7		ug/Kg	✱	90	65 - 135	5	30
1,2-Dichloroethane	1.1	U	55.3	43.9		ug/Kg	✱	79	60 - 140	9	30
Trichloroethene	1.7	U	55.3	53.5		ug/Kg	✱	97	61 - 135	5	30
1,1,1-Trichloroethane	0.89	U	55.3	46.9		ug/Kg	✱	85	60 - 140	4	30
1,1-Dichloroethane	1.0	U	55.3	50.6		ug/Kg	✱	92	60 - 140	4	30
1,2-Dichloropropane	0.86	U	55.3	49.6		ug/Kg	✱	90	60 - 140	6	30
2,2-Dichloropropane	2.2	U	55.3	36.9		ug/Kg	✱	67	60 - 140	3	30

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-54676-7 MSD

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Dup -1

Prep Type: Total/NA

Prep Batch: 78887

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	0.90	U	55.3	42.8		ug/Kg	✱	77	60 - 140	10	30
Chloroform	0.80	U	55.3	50.1		ug/Kg	✱	91	60 - 140	3	30
Bromodichloromethane	0.80	U	55.3	46.5		ug/Kg	✱	84	60 - 140	5	30
1,1-Dichloropropene	0.78	U	55.3	52.3		ug/Kg	✱	95	60 - 140	3	30
cis-1,3-Dichloropropene	0.65	U	55.3	49.1		ug/Kg	✱	89	60 - 140	8	30
4-Methyl-2-pentanone (MIBK)	1.8	U	111	78.8		ug/Kg	✱	71	60 - 140	14	30
Toluene	1.7	U	55.3	48.0		ug/Kg	✱	87	64 - 135	6	30
trans-1,3-Dichloropropene	0.70	U	55.3	50.5		ug/Kg	✱	91	60 - 140	9	30
1,1,2-Trichloroethane	0.88	U	55.3	43.8		ug/Kg	✱	79	60 - 140	9	30
Tetrachloroethene	0.86	U	55.3	89.8	F	ug/Kg	✱	162	60 - 140	4	30
1,3-Dichloropropane	0.76	U	55.3	43.2		ug/Kg	✱	78	60 - 140	8	30
2-Hexanone	1.2	U	111	70.7		ug/Kg	✱	64	60 - 140	12	30
Dibromochloromethane	1.1	U	55.3	44.7		ug/Kg	✱	81	60 - 140	7	30
1,2-Dibromoethane	1.2	U	55.3	40.5		ug/Kg	✱	73	60 - 140	10	30
Chlorobenzene	1.2	U	55.3	50.5		ug/Kg	✱	91	65 - 135	5	30
1,1,1,2-Tetrachloroethane	1.7	U	55.3	48.8		ug/Kg	✱	88	60 - 140	7	30
Ethylbenzene	1.2	U	55.3	48.2		ug/Kg	✱	87	60 - 140	8	30
Xylenes, Total	1.4	U	166	146		ug/Kg	✱	88	60 - 140	6	30
Styrene	0.86	U	55.3	50.6		ug/Kg	✱	92	60 - 140	7	30
Bromoform	1.7	U	55.3	36.6		ug/Kg	✱	66	60 - 140	7	30
Isopropylbenzene	1.1	U	55.3	56.3		ug/Kg	✱	102	60 - 140	5	30
Bromobenzene	1.2	U	55.3	48.4		ug/Kg	✱	88	60 - 140	6	30
1,2,3-Trichloropropane	1.6	U	55.3	34.8		ug/Kg	✱	63	60 - 140	9	30
1,1,1,2,2-Tetrachloroethane	1.0	U	55.3	32.6	F	ug/Kg	✱	59	60 - 140	14	30
N-Propylbenzene	1.1	U	55.3	49.2		ug/Kg	✱	89	60 - 140	6	30
2-Chlorotoluene	0.82	U	55.3	48.8		ug/Kg	✱	88	60 - 140	5	30
4-Chlorotoluene	1.0	U	55.3	51.3		ug/Kg	✱	93	60 - 140	4	30
1,3,5-Trimethylbenzene	1.9	U	55.3	47.8		ug/Kg	✱	86	60 - 140	4	30
tert-Butylbenzene	1.1	U	55.3	50.3		ug/Kg	✱	91	60 - 140	5	30
4-Isopropyltoluene	1.2	U	55.3	52.9		ug/Kg	✱	96	60 - 140	5	30
1,2,4-Trimethylbenzene	1.1	U	55.3	49.5		ug/Kg	✱	89	60 - 140	3	30
sec-Butylbenzene	0.84	U	55.3	49.1		ug/Kg	✱	89	60 - 140	6	30
1,3-Dichlorobenzene	0.86	U	55.3	50.7		ug/Kg	✱	92	60 - 140	5	30
1,4-Dichlorobenzene	0.80	U	55.3	49.9		ug/Kg	✱	90	60 - 140	5	30
1,2-Dichlorobenzene	0.96	U	55.3	49.9		ug/Kg	✱	90	60 - 140	3	30
n-Butylbenzene	0.70	U	55.3	49.3		ug/Kg	✱	89	60 - 140	6	30
1,2-Dibromo-3-Chloropropane	2.9	U	55.3	29.1	F	ug/Kg	✱	53	60 - 140	5	30
1,2,4-Trichlorobenzene	2.4	U	55.3	52.4		ug/Kg	✱	95	60 - 140	0	30
Hexachlorobutadiene	1.4	U	55.3	54.9		ug/Kg	✱	99	60 - 140	3	30
Naphthalene	2.9	U	55.3	39.8		ug/Kg	✱	72	60 - 140	1	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	75		61 - 130
Dibromofluoromethane	93		68 - 140
Toluene-d8 (Surr)	97		50 - 130
4-Bromofluorobenzene	103		57 - 140

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-78972/4

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.5	U	5.0	1.5	ug/Kg			05/09/12 10:44	1
Chloromethane	1.7	U	10	1.7	ug/Kg			05/09/12 10:44	1
Vinyl chloride	0.90	U	10	0.90	ug/Kg			05/09/12 10:44	1
Bromomethane	0.83	U	10	0.83	ug/Kg			05/09/12 10:44	1
Chloroethane	1.4	U	10	1.4	ug/Kg			05/09/12 10:44	1
Trichlorofluoromethane	0.66	U	10	0.66	ug/Kg			05/09/12 10:44	1
1,1-Dichloroethene	1.2	U	5.0	1.2	ug/Kg			05/09/12 10:44	1
trans-1,2-Dichloroethene	1.1	U	5.0	1.1	ug/Kg			05/09/12 10:44	1
Methyl tert-butyl ether	1.8	U	5.0	1.8	ug/Kg			05/09/12 10:44	1
Acetone	1.7	U	10	1.7	ug/Kg			05/09/12 10:44	1
Iodomethane	2.5	U	5.0	2.5	ug/Kg			05/09/12 10:44	1
Carbon disulfide	0.55	U	10	0.55	ug/Kg			05/09/12 10:44	1
Methylene Chloride	2.2	U	10	2.2	ug/Kg			05/09/12 10:44	1
cis-1,2-Dichloroethene	0.83	U	5.0	0.83	ug/Kg			05/09/12 10:44	1
2-Butanone (MEK)	1.9	U	10	1.9	ug/Kg			05/09/12 10:44	1
Carbon tetrachloride	1.1	U	5.0	1.1	ug/Kg			05/09/12 10:44	1
Benzene	0.63	U	5.0	0.63	ug/Kg			05/09/12 10:44	1
1,2-Dichloroethane	0.90	U	5.0	0.90	ug/Kg			05/09/12 10:44	1
Trichloroethene	1.4	U	5.0	1.4	ug/Kg			05/09/12 10:44	1
1,1,1-Trichloroethane	0.74	U	5.0	0.74	ug/Kg			05/09/12 10:44	1
1,1-Dichloroethane	0.87	U	5.0	0.87	ug/Kg			05/09/12 10:44	1
1,2-Dichloropropane	0.71	U	5.0	0.71	ug/Kg			05/09/12 10:44	1
2,2-Dichloropropane	1.8	U	5.0	1.8	ug/Kg			05/09/12 10:44	1
Dibromomethane	0.75	U	5.0	0.75	ug/Kg			05/09/12 10:44	1
Chloroform	0.66	U	5.0	0.66	ug/Kg			05/09/12 10:44	1
Bromodichloromethane	0.66	U	5.0	0.66	ug/Kg			05/09/12 10:44	1
1,1-Dichloropropene	0.65	U	5.0	0.65	ug/Kg			05/09/12 10:44	1
cis-1,3-Dichloropropene	0.54	U	5.0	0.54	ug/Kg			05/09/12 10:44	1
4-Methyl-2-pentanone (MIBK)	1.5	U	10	1.5	ug/Kg			05/09/12 10:44	1
Toluene	1.4	U	5.0	1.4	ug/Kg			05/09/12 10:44	1
trans-1,3-Dichloropropene	0.58	U	5.0	0.58	ug/Kg			05/09/12 10:44	1
1,1,2-Trichloroethane	0.73	U	5.0	0.73	ug/Kg			05/09/12 10:44	1
Tetrachloroethene	0.71	U	5.0	0.71	ug/Kg			05/09/12 10:44	1
1,3-Dichloropropane	0.63	U	5.0	0.63	ug/Kg			05/09/12 10:44	1
2-Hexanone	1.0	U	10	1.0	ug/Kg			05/09/12 10:44	1
Dibromochloromethane	0.94	U	5.0	0.94	ug/Kg			05/09/12 10:44	1
1,2-Dibromoethane	1.0	U	5.0	1.0	ug/Kg			05/09/12 10:44	1
Chlorobenzene	0.96	U	5.0	0.96	ug/Kg			05/09/12 10:44	1
1,1,1,2-Tetrachloroethane	1.4	U	5.0	1.4	ug/Kg			05/09/12 10:44	1
Ethylbenzene	1.0	U	5.0	1.0	ug/Kg			05/09/12 10:44	1
Xylenes, Total	1.1	U	5.0	1.1	ug/Kg			05/09/12 10:44	1
Styrene	0.71	U	5.0	0.71	ug/Kg			05/09/12 10:44	1
Bromoform	1.4	U	5.0	1.4	ug/Kg			05/09/12 10:44	1
Isopropylbenzene	0.92	U	5.0	0.92	ug/Kg			05/09/12 10:44	1
Bromobenzene	0.99	U	5.0	0.99	ug/Kg			05/09/12 10:44	1
1,2,3-Trichloropropane	1.3	U	5.0	1.3	ug/Kg			05/09/12 10:44	1
1,1,2,2-Tetrachloroethane	0.87	U	5.0	0.87	ug/Kg			05/09/12 10:44	1
N-Propylbenzene	0.95	U	5.0	0.95	ug/Kg			05/09/12 10:44	1
2-Chlorotoluene	0.68	U	5.0	0.68	ug/Kg			05/09/12 10:44	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-78972/4

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.83	U	5.0	0.83	ug/Kg			05/09/12 10:44	1
1,3,5-Trimethylbenzene	1.6	U	5.0	1.6	ug/Kg			05/09/12 10:44	1
tert-Butylbenzene	0.95	U	5.0	0.95	ug/Kg			05/09/12 10:44	1
4-Isopropyltoluene	1.0	U	5.0	1.0	ug/Kg			05/09/12 10:44	1
1,2,4-Trimethylbenzene	0.92	U	5.0	0.92	ug/Kg			05/09/12 10:44	1
sec-Butylbenzene	0.70	U	5.0	0.70	ug/Kg			05/09/12 10:44	1
1,3-Dichlorobenzene	0.71	U	5.0	0.71	ug/Kg			05/09/12 10:44	1
1,4-Dichlorobenzene	0.66	U	5.0	0.66	ug/Kg			05/09/12 10:44	1
1,2-Dichlorobenzene	0.80	U	5.0	0.80	ug/Kg			05/09/12 10:44	1
n-Butylbenzene	0.58	U	5.0	0.58	ug/Kg			05/09/12 10:44	1
1,2-Dibromo-3-Chloropropane	2.4	U	5.0	2.4	ug/Kg			05/09/12 10:44	1
1,2,4-Trichlorobenzene	2.0	U	5.0	2.0	ug/Kg			05/09/12 10:44	1
Hexachlorobutadiene	1.1	U	5.0	1.1	ug/Kg			05/09/12 10:44	1
Naphthalene	2.4	U	10	2.4	ug/Kg			05/09/12 10:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	89		61 - 130		05/09/12 10:44	1
Dibromofluoromethane	90		68 - 140		05/09/12 10:44	1
Toluene-d8 (Surr)	92		50 - 130		05/09/12 10:44	1
4-Bromofluorobenzene	98		57 - 140		05/09/12 10:44	1

Lab Sample ID: LCS 600-78972/3

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	50.0	68.1		ug/Kg		136	12 - 136
Chloromethane	50.0	46.4		ug/Kg		93	21 - 153
Vinyl chloride	50.0	41.9		ug/Kg		84	28 - 159
Bromomethane	50.0	41.6		ug/Kg		83	28 - 164
Chloroethane	50.0	42.1		ug/Kg		84	30 - 136
Trichlorofluoromethane	50.0	41.9		ug/Kg		84	60 - 140
1,1-Dichloroethene	50.0	42.9		ug/Kg		86	40 - 157
trans-1,2-Dichloroethene	50.0	44.0		ug/Kg		88	65 - 130
Methyl tert-butyl ether	50.0	38.8		ug/Kg		78	49 - 152
Acetone	100	90.7		ug/Kg		91	44 - 136
Iodomethane	50.0	41.2		ug/Kg		82	60 - 140
Carbon disulfide	50.0	42.3		ug/Kg		85	53 - 176
Methylene Chloride	50.0	32.9		ug/Kg		66	48 - 144
cis-1,2-Dichloroethene	50.0	40.1		ug/Kg		80	62 - 130
2-Butanone (MEK)	100	79.0		ug/Kg		79	42 - 186
Carbon tetrachloride	50.0	41.9		ug/Kg		84	63 - 132
Benzene	50.0	42.3		ug/Kg		85	66 - 128
1,2-Dichloroethane	50.0	40.4		ug/Kg		81	61 - 135
Trichloroethene	50.0	42.2		ug/Kg		84	70 - 136
1,1,1-Trichloroethane	50.0	41.8		ug/Kg		84	70 - 127
1,1-Dichloroethane	50.0	43.9		ug/Kg		88	64 - 130
1,2-Dichloropropane	50.0	40.6		ug/Kg		81	71 - 122
2,2-Dichloropropane	50.0	39.2		ug/Kg		78	60 - 132

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-78972/3

Matrix: Solid

Analysis Batch: 78972

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	50.0	40.3		ug/Kg		81	63 - 128
Chloroform	50.0	41.1		ug/Kg		82	67 - 126
Bromodichloromethane	50.0	39.1		ug/Kg		78	68 - 121
1,1-Dichloropropene	50.0	45.5		ug/Kg		91	70 - 125
cis-1,3-Dichloropropene	50.0	41.8		ug/Kg		84	66 - 129
4-Methyl-2-pentanone (MIBK)	100	84.3		ug/Kg		84	52 - 146
Toluene	50.0	41.2		ug/Kg		82	69 - 125
trans-1,3-Dichloropropene	50.0	45.1		ug/Kg		90	66 - 134
1,1,2-Trichloroethane	50.0	40.4		ug/Kg		81	67 - 124
Tetrachloroethene	50.0	49.5		ug/Kg		99	69 - 125
1,3-Dichloropropane	50.0	38.9		ug/Kg		78	67 - 128
2-Hexanone	100	76.3		ug/Kg		76	52 - 142
Dibromochloromethane	50.0	40.4		ug/Kg		81	63 - 125
1,2-Dibromoethane	50.0	37.5		ug/Kg		75	60 - 140
Chlorobenzene	50.0	41.6		ug/Kg		83	67 - 126
1,1,1,2-Tetrachloroethane	50.0	40.8		ug/Kg		82	69 - 125
Ethylbenzene	50.0	41.3		ug/Kg		83	64 - 127
Xylenes, Total	150	122		ug/Kg		81	65 - 129
Styrene	50.0	41.5		ug/Kg		83	63 - 128
Bromoform	50.0	35.9		ug/Kg		72	50 - 130
Isopropylbenzene	50.0	46.8		ug/Kg		94	66 - 141
Bromobenzene	50.0	41.1		ug/Kg		82	71 - 124
1,2,3-Trichloropropane	50.0	35.1		ug/Kg		70	52 - 155
1,1,1,2,2-Tetrachloroethane	50.0	35.4		ug/Kg		71	59 - 134
N-Propylbenzene	50.0	41.5		ug/Kg		83	64 - 133
2-Chlorotoluene	50.0	40.7		ug/Kg		81	60 - 140
4-Chlorotoluene	50.0	42.0		ug/Kg		84	60 - 140
1,3,5-Trimethylbenzene	50.0	39.4		ug/Kg		79	65 - 129
tert-Butylbenzene	50.0	40.7		ug/Kg		81	60 - 140
4-Isopropyltoluene	50.0	44.0		ug/Kg		88	60 - 140
1,2,4-Trimethylbenzene	50.0	40.7		ug/Kg		81	62 - 129
sec-Butylbenzene	50.0	41.0		ug/Kg		82	65 - 131
1,3-Dichlorobenzene	50.0	42.0		ug/Kg		84	70 - 130
1,4-Dichlorobenzene	50.0	41.8		ug/Kg		84	72 - 127
1,2-Dichlorobenzene	50.0	42.0		ug/Kg		84	71 - 129
n-Butylbenzene	50.0	42.4		ug/Kg		85	60 - 140
1,2-Dibromo-3-Chloropropane	50.0	30.4		ug/Kg		61	49 - 143
1,2,4-Trichlorobenzene	50.0	46.0		ug/Kg		92	63 - 138
Hexachlorobutadiene	50.0	45.9		ug/Kg		92	55 - 138
Naphthalene	50.0	37.1		ug/Kg		74	55 - 149

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	78		61 - 130
Dibromofluoromethane	86		68 - 140
Toluene-d8 (Surr)	92		50 - 130
4-Bromofluorobenzene	94		57 - 140

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79199/4

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/14/12 10:55	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/14/12 10:55	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/14/12 10:55	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/14/12 10:55	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/14/12 10:55	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/14/12 10:55	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/14/12 10:55	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
Acetone	0.99	U	5.0	0.99	ug/L			05/14/12 10:55	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/14/12 10:55	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/14/12 10:55	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/14/12 10:55	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/14/12 10:55	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/14/12 10:55	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
Benzene	0.080	U	1.0	0.080	ug/L			05/14/12 10:55	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/14/12 10:55	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/14/12 10:55	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/14/12 10:55	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/14/12 10:55	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/14/12 10:55	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/14/12 10:55	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/14/12 10:55	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/14/12 10:55	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/14/12 10:55	1
Toluene	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/14/12 10:55	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/14/12 10:55	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/14/12 10:55	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/14/12 10:55	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/14/12 10:55	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/14/12 10:55	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/14/12 10:55	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/14/12 10:55	1
Styrene	0.070	U	1.0	0.070	ug/L			05/14/12 10:55	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/14/12 10:55	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/14/12 10:55	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/14/12 10:55	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/14/12 10:55	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/14/12 10:55	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79199/4

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/14/12 10:55	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/14/12 10:55	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/14/12 10:55	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/14/12 10:55	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/14/12 10:55	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/14/12 10:55	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/14/12 10:55	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/14/12 10:55	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/14/12 10:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139		05/14/12 10:55	1
Dibromofluoromethane	88		62 - 130		05/14/12 10:55	1
Toluene-d8 (Surr)	90		70 - 130		05/14/12 10:55	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		05/14/12 10:55	1

Lab Sample ID: LCS 600-79199/3

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	38.0	*	ug/L		380	12 - 136
Chloromethane	10.0	15.9	*	ug/L		159	32 - 151
Vinyl chloride	10.0	14.0		ug/L		140	47 - 146
Bromomethane	10.0	13.7		ug/L		137	52 - 146
Chloroethane	10.0	13.0		ug/L		130	56 - 144
Trichlorofluoromethane	10.0	14.2		ug/L		142	55 - 142
1,1-Dichloroethene	10.0	11.5		ug/L		115	59 - 145
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	8.67		ug/L		87	63 - 142
Acetone	20.0	17.9		ug/L		89	28 - 152
Iodomethane	10.0	9.38		ug/L		94	17 - 197
Carbon disulfide	10.0	10.9		ug/L		109	32 - 177
Methylene Chloride	10.0	9.45		ug/L		95	62 - 134
cis-1,2-Dichloroethene	10.0	9.05		ug/L		91	69 - 129
2-Butanone (MEK)	20.0	15.3		ug/L		77	59 - 133
Carbon tetrachloride	10.0	12.3		ug/L		123	59 - 147
Benzene	10.0	9.59		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.81		ug/L		98	66 - 140
Trichloroethene	10.0	9.45		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	11.3		ug/L		113	65 - 142
1,1-Dichloroethane	10.0	10.0		ug/L		100	66 - 126
1,2-Dichloropropane	10.0	9.81		ug/L		98	72 - 125
2,2-Dichloropropane	10.0	13.0		ug/L		130	43 - 169

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79199/3

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	10.0	10.2		ug/L		102	68 - 134
Chloroform	10.0	9.71		ug/L		97	69 - 128
Bromodichloromethane	10.0	10.6		ug/L		106	73 - 130
1,1-Dichloropropene	10.0	10.0		ug/L		100	59 - 134
cis-1,3-Dichloropropene	10.0	11.3		ug/L		113	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	18.5		ug/L		92	56 - 142
Toluene	10.0	9.63		ug/L		96	67 - 130
trans-1,3-Dichloropropene	10.0	12.3		ug/L		123	63 - 133
1,1,2-Trichloroethane	10.0	9.47		ug/L		95	68 - 130
Tetrachloroethene	10.0	9.65		ug/L		96	61 - 142
1,3-Dichloropropane	10.0	9.06		ug/L		91	62 - 132
2-Hexanone	20.0	17.8		ug/L		89	51 - 130
Dibromochloromethane	10.0	11.3		ug/L		113	58 - 132
1,2-Dibromoethane	10.0	9.83		ug/L		98	68 - 128
Chlorobenzene	10.0	9.35		ug/L		93	60 - 136
1,1,1,2-Tetrachloroethane	10.0	10.9		ug/L		109	57 - 136
Ethylbenzene	10.0	9.50		ug/L		95	68 - 128
Xylenes, Total	30.0	28.7		ug/L		96	68 - 132
Styrene	10.0	9.84		ug/L		98	68 - 133
Bromoform	10.0	12.0		ug/L		120	39 - 149
Isopropylbenzene	10.0	11.1		ug/L		111	79 - 146
Bromobenzene	10.0	9.18		ug/L		92	61 - 134
1,2,3-Trichloropropane	10.0	8.67		ug/L		87	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.91		ug/L		99	68 - 134
N-Propylbenzene	10.0	9.89		ug/L		99	61 - 137
2-Chlorotoluene	10.0	9.27		ug/L		93	58 - 135
4-Chlorotoluene	10.0	9.73		ug/L		97	64 - 134
1,3,5-Trimethylbenzene	10.0	9.52		ug/L		95	63 - 132
tert-Butylbenzene	10.0	10.7		ug/L		107	67 - 148
4-Isopropyltoluene	10.0	10.5		ug/L		105	63 - 138
1,2,4-Trimethylbenzene	10.0	9.53		ug/L		95	63 - 131
sec-Butylbenzene	10.0	9.91		ug/L		99	61 - 134
1,3-Dichlorobenzene	10.0	9.46		ug/L		95	71 - 132
1,4-Dichlorobenzene	10.0	9.70		ug/L		97	72 - 131
1,2-Dichlorobenzene	10.0	9.22		ug/L		92	71 - 133
n-Butylbenzene	10.0	10.4		ug/L		104	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	16.5	*	ug/L		165	43 - 141
1,2,4-Trichlorobenzene	10.0	9.65		ug/L		96	55 - 151
Hexachlorobutadiene	10.0	9.96		ug/L		100	53 - 140
Naphthalene	10.0	10.1		ug/L		101	19 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 139
Dibromofluoromethane	91		62 - 130
Toluene-d8 (Surr)	89		70 - 130
1,2-Dichloroethane-d4 (Surr)	82		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79457/3-A

Matrix: Solid

Analysis Batch: 79558

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79457

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	190	U	630	190	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Chloromethane	210	U	1300	210	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Vinyl chloride	110	U	1300	110	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Bromomethane	100	U	1300	100	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Chloroethane	180	U	1300	180	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Trichlorofluoromethane	83	U	1300	83	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,1-Dichloroethene	150	U	630	150	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
trans-1,2-Dichloroethene	140	U	630	140	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Methyl tert-butyl ether	230	U	630	230	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Acetone	210	U	1300	210	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Iodomethane	310	U	630	310	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Carbon disulfide	69	U	1300	69	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Methylene Chloride	270	U	1300	270	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
cis-1,2-Dichloroethene	100	U	630	100	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
2-Butanone (MEK)	240	U	1300	240	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Carbon tetrachloride	140	U	630	140	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Benzene	79	U	630	79	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2-Dichloroethane	110	U	630	110	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Trichloroethene	180	U	630	180	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,1,1-Trichloroethane	93	U	630	93	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,1-Dichloroethane	110	U	630	110	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2-Dichloropropane	89	U	630	89	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
2,2-Dichloropropane	230	U	630	230	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Dibromomethane	94	U	630	94	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Chloroform	83	U	630	83	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Bromodichloromethane	83	U	630	83	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,1-Dichloropropene	81	U	630	81	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
cis-1,3-Dichloropropene	68	U	630	68	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
4-Methyl-2-pentanone (MIBK)	180	U	1300	180	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Toluene	170	U	630	170	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
trans-1,3-Dichloropropene	73	U	630	73	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,1,2-Trichloroethane	91	U	5000	91	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Tetrachloroethene	89	U	630	89	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,3-Dichloropropane	79	U	630	79	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
2-Hexanone	130	U	1300	130	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Dibromochloromethane	120	U	630	120	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2-Dibromoethane	130	U	630	130	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Chlorobenzene	120	U	630	120	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,1,1,2-Tetrachloroethane	180	U	630	180	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Ethylbenzene	130	U	630	130	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Xylenes, Total	140	U	630	140	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Styrene	89	U	630	89	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Bromoform	170	U	630	170	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Isopropylbenzene	120	U	630	120	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Bromobenzene	120	U	630	120	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2,3-Trichloropropane	160	U	630	160	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,1,1,2,2-Tetrachloroethane	110	U	630	110	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
N-Propylbenzene	120	U	630	120	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
2-Chlorotoluene	85	U	630	85	ug/Kg		05/17/12 10:00	05/17/12 12:54	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79457/3-A

Matrix: Solid

Analysis Batch: 79558

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79457

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	100	U	630	100	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,3,5-Trimethylbenzene	200	U	630	200	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
tert-Butylbenzene	120	U	630	120	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
4-Isopropyltoluene	130	U	630	130	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2,4-Trimethylbenzene	120	U	630	120	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
sec-Butylbenzene	88	U	630	88	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,3-Dichlorobenzene	89	U	630	89	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,4-Dichlorobenzene	83	U	630	83	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2-Dichlorobenzene	100	U	630	100	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
n-Butylbenzene	73	U	630	73	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2-Dibromo-3-Chloropropane	310	U	630	310	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
1,2,4-Trichlorobenzene	250	U	630	250	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Hexachlorobutadiene	140	U	630	140	ug/Kg		05/17/12 10:00	05/17/12 12:54	1
Naphthalene	300	U	1300	300	ug/Kg		05/17/12 10:00	05/17/12 12:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	62		61 - 130	05/17/12 10:00	05/17/12 12:54	1
Dibromofluoromethane	76		68 - 140	05/17/12 10:00	05/17/12 12:54	1
Toluene-d8 (Surr)	87		50 - 130	05/17/12 10:00	05/17/12 12:54	1
4-Bromofluorobenzene	90		57 - 140	05/17/12 10:00	05/17/12 12:54	1

Lab Sample ID: LCS 600-79457/1-A

Matrix: Solid

Analysis Batch: 79558

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	6250	2780		ug/Kg		44	12 - 136
Chloromethane	6250	4070		ug/Kg		65	21 - 153
Vinyl chloride	6250	3530		ug/Kg		57	28 - 159
Bromomethane	6250	4280		ug/Kg		69	28 - 164
Chloroethane	6250	4120		ug/Kg		66	30 - 136
Trichlorofluoromethane	6250	3810		ug/Kg		61	60 - 140
1,1-Dichloroethene	6250	4670		ug/Kg		75	40 - 157
trans-1,2-Dichloroethene	6250	5040		ug/Kg		81	65 - 130
Methyl tert-butyl ether	6250	4820		ug/Kg		77	49 - 152
Acetone	12500	9740		ug/Kg		78	44 - 136
Iodomethane	6250	4350		ug/Kg		70	60 - 140
Carbon disulfide	6250	4370		ug/Kg		70	53 - 176
Methylene Chloride	6250	5940		ug/Kg		95	48 - 144
cis-1,2-Dichloroethene	6250	5180		ug/Kg		83	62 - 130
2-Butanone (MEK)	12500	8770		ug/Kg		70	42 - 186
Carbon tetrachloride	6250	5810		ug/Kg		93	63 - 132
Benzene	6250	5680		ug/Kg		91	66 - 128
1,2-Dichloroethane	6250	5810		ug/Kg		93	61 - 135
Trichloroethene	6250	6040		ug/Kg		97	70 - 136
1,1,1-Trichloroethane	6250	5650		ug/Kg		90	70 - 127
1,1-Dichloroethane	6250	5860		ug/Kg		94	64 - 130
1,2-Dichloropropane	6250	6120		ug/Kg		98	71 - 122
2,2-Dichloropropane	6250	5670		ug/Kg		91	60 - 132

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79457/1-A

Matrix: Solid

Analysis Batch: 79558

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79457

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	6250	6100		ug/Kg		98	63 - 128
Chloroform	6250	6380		ug/Kg		102	67 - 126
Bromodichloromethane	6250	5690		ug/Kg		91	68 - 121
1,1-Dichloropropene	6250	6280		ug/Kg		100	70 - 125
cis-1,3-Dichloropropene	6250	5960		ug/Kg		95	66 - 129
4-Methyl-2-pentanone (MIBK)	12500	10100		ug/Kg		81	52 - 146
Toluene	6250	6390		ug/Kg		102	69 - 125
trans-1,3-Dichloropropene	6250	6060		ug/Kg		97	66 - 134
1,1,2-Trichloroethane	6250	6530		ug/Kg		104	67 - 124
Tetrachloroethene	6250	6290		ug/Kg		101	69 - 125
1,3-Dichloropropane	6250	6530		ug/Kg		104	67 - 128
2-Hexanone	12500	9340		ug/Kg		75	52 - 142
Dibromochloromethane	6250	5750		ug/Kg		92	63 - 125
1,2-Dibromoethane	6250	6850		ug/Kg		110	60 - 140
Chlorobenzene	6250	6780		ug/Kg		109	67 - 126
1,1,1,2-Tetrachloroethane	6250	6710		ug/Kg		107	69 - 125
Ethylbenzene	6250	6280		ug/Kg		101	64 - 127
Xylenes, Total	18800	19500		ug/Kg		104	65 - 129
Styrene	6250	5980		ug/Kg		96	63 - 128
Bromoform	6250	5810		ug/Kg		93	50 - 130
Isopropylbenzene	6250	6980		ug/Kg		112	66 - 141
Bromobenzene	6250	7050		ug/Kg		113	71 - 124
1,2,3-Trichloropropane	6250	6460		ug/Kg		103	52 - 155
1,1,2,2-Tetrachloroethane	6250	6430		ug/Kg		103	59 - 134
N-Propylbenzene	6250	7240		ug/Kg		116	64 - 133
2-Chlorotoluene	6250	6760		ug/Kg		108	60 - 140
4-Chlorotoluene	6250	7040		ug/Kg		113	60 - 140
1,3,5-Trimethylbenzene	6250	6400		ug/Kg		102	65 - 129
tert-Butylbenzene	6250	8280		ug/Kg		132	60 - 140
4-Isopropyltoluene	6250	6700		ug/Kg		107	60 - 140
1,2,4-Trimethylbenzene	6250	6560		ug/Kg		105	62 - 129
sec-Butylbenzene	6250	6880		ug/Kg		110	65 - 131
1,3-Dichlorobenzene	6250	7020		ug/Kg		112	70 - 130
1,4-Dichlorobenzene	6250	6580		ug/Kg		105	72 - 127
1,2-Dichlorobenzene	6250	6980		ug/Kg		112	71 - 129
n-Butylbenzene	6250	6390		ug/Kg		102	60 - 140
1,2-Dibromo-3-Chloropropane	6250	5830		ug/Kg		93	49 - 143
1,2,4-Trichlorobenzene	6250	6790		ug/Kg		109	63 - 138
Hexachlorobutadiene	6250	6660		ug/Kg		107	55 - 138
Naphthalene	6250	5920		ug/Kg		95	55 - 149

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	70		61 - 130
Dibromofluoromethane	80		68 - 140
Toluene-d8 (Surr)	92		50 - 130
4-Bromofluorobenzene	95		57 - 140

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-79457/2-A

Matrix: Solid

Analysis Batch: 79558

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 79457

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	6250	2720		ug/Kg		44	12 - 136	2	30
Chloromethane	6250	4130		ug/Kg		66	21 - 153	1	30
Vinyl chloride	6250	3480		ug/Kg		56	28 - 159	1	30
Bromomethane	6250	4380		ug/Kg		70	28 - 164	2	30
Chloroethane	6250	3950		ug/Kg		63	30 - 136	4	30
Trichlorofluoromethane	6250	3750		ug/Kg		60	60 - 140	1	30
1,1-Dichloroethene	6250	4620		ug/Kg		74	40 - 157	1	30
trans-1,2-Dichloroethene	6250	5080		ug/Kg		81	65 - 130	1	30
Methyl tert-butyl ether	6250	4900		ug/Kg		78	49 - 152	2	30
Acetone	12500	9290		ug/Kg		74	44 - 136	5	30
Iodomethane	6250	4360		ug/Kg		70	60 - 140	0	30
Carbon disulfide	6250	4250		ug/Kg		68	53 - 176	3	30
Methylene Chloride	6250	6020		ug/Kg		96	48 - 144	1	30
cis-1,2-Dichloroethene	6250	5280		ug/Kg		85	62 - 130	2	30
2-Butanone (MEK)	12500	8790		ug/Kg		70	42 - 186	0	30
Carbon tetrachloride	6250	5650		ug/Kg		90	63 - 132	3	30
Benzene	6250	5510		ug/Kg		88	66 - 128	3	30
1,2-Dichloroethane	6250	5780		ug/Kg		92	61 - 135	1	30
Trichloroethene	6250	5630		ug/Kg		90	70 - 136	7	30
1,1,1-Trichloroethane	6250	5420		ug/Kg		87	70 - 127	4	30
1,1-Dichloroethane	6250	5720		ug/Kg		92	64 - 130	2	30
1,2-Dichloropropane	6250	5830		ug/Kg		93	71 - 122	5	30
2,2-Dichloropropane	6250	5430		ug/Kg		87	60 - 132	4	30
Dibromomethane	6250	5980		ug/Kg		96	63 - 128	2	30
Chloroform	6250	6620		ug/Kg		106	67 - 126	4	30
Bromodichloromethane	6250	5850		ug/Kg		94	68 - 121	3	30
1,1-Dichloropropene	6250	6420		ug/Kg		103	70 - 125	2	30
cis-1,3-Dichloropropene	6250	6010		ug/Kg		96	66 - 129	1	30
4-Methyl-2-pentanone (MIBK)	12500	10900		ug/Kg		88	52 - 146	8	30
Toluene	6250	6350		ug/Kg		102	69 - 125	1	30
trans-1,3-Dichloropropene	6250	6200		ug/Kg		99	66 - 134	2	30
1,1,2-Trichloroethane	6250	6950		ug/Kg		111	67 - 124	6	30
Tetrachloroethene	6250	6530		ug/Kg		105	69 - 125	4	30
1,3-Dichloropropane	6250	6630		ug/Kg		106	67 - 128	2	30
2-Hexanone	12500	9280		ug/Kg		74	52 - 142	1	30
Dibromochloromethane	6250	5840		ug/Kg		93	63 - 125	2	30
1,2-Dibromoethane	6250	6920		ug/Kg		111	60 - 140	1	30
Chlorobenzene	6250	6740		ug/Kg		108	67 - 126	1	30
1,1,1,2-Tetrachloroethane	6250	6790		ug/Kg		109	69 - 125	1	30
Ethylbenzene	6250	6380		ug/Kg		102	64 - 127	2	30
Xylenes, Total	18800	19800		ug/Kg		106	65 - 129	2	30
Styrene	6250	6060		ug/Kg		97	63 - 128	1	30
Bromoform	6250	5680		ug/Kg		91	50 - 130	2	30
Isopropylbenzene	6250	6870		ug/Kg		110	66 - 141	2	30
Bromobenzene	6250	6610		ug/Kg		106	71 - 124	7	30
1,2,3-Trichloropropane	6250	6570		ug/Kg		105	52 - 155	2	30
1,1,2,2-Tetrachloroethane	6250	6590		ug/Kg		105	59 - 134	3	30
N-Propylbenzene	6250	7120		ug/Kg		114	64 - 133	2	30
2-Chlorotoluene	6250	6650		ug/Kg		106	60 - 140	2	30

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 600-79457/2-A

Matrix: Solid

Analysis Batch: 79558

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 79457

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Chlorotoluene	6250	6910		ug/Kg		111	60 - 140	2	30
1,3,5-Trimethylbenzene	6250	6330		ug/Kg		101	65 - 129	1	30
tert-Butylbenzene	6250	8040		ug/Kg		129	60 - 140	3	30
4-Isopropyltoluene	6250	6770		ug/Kg		108	60 - 140	1	30
1,2,4-Trimethylbenzene	6250	6460		ug/Kg		103	62 - 129	1	30
sec-Butylbenzene	6250	6770		ug/Kg		108	65 - 131	1	30
1,3-Dichlorobenzene	6250	7030		ug/Kg		113	70 - 130	0	30
1,4-Dichlorobenzene	6250	6380		ug/Kg		102	72 - 127	3	30
1,2-Dichlorobenzene	6250	6920		ug/Kg		111	71 - 129	1	30
n-Butylbenzene	6250	6370		ug/Kg		102	60 - 140	0	30
1,2-Dibromo-3-Chloropropane	6250	6150		ug/Kg		98	49 - 143	5	30
1,2,4-Trichlorobenzene	6250	6790		ug/Kg		109	63 - 138	0	30
Hexachlorobutadiene	6250	6670		ug/Kg		107	55 - 138	0	30
Naphthalene	6250	6140		ug/Kg		98	55 - 149	4	30

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	69		61 - 130
Dibromofluoromethane	78		68 - 140
Toluene-d8 (Surr)	92		50 - 130
4-Bromofluorobenzene	96		57 - 140

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-79176/1-A

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79176

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.0	U	20	3.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Phenol	4.2	U	20	4.2	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Bis(2-chloroethyl)ether	1.6	U	20	1.6	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2-Chlorophenol	2.0	U	17	2.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzyl alcohol	5.8	U	17	5.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Bis(2-chloroisopropyl) ether	8.8	U	33	8.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
3 & 4 Methylphenol	2.8	U	33	2.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
N-Nitrosodi-n-propylamine	2.2	U	30	2.2	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Hexachloroethane	2.3	U	17	2.3	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Nitrobenzene	2.9	U	20	2.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Isophorone	1.0	U	17	1.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2-Nitrophenol	3.9	U	20	3.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2,4-Dimethylphenol	8.5	U	25	8.5	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Bis(2-chloroethoxy)methane	1.4	U	25	1.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2,4-Dichlorophenol	3.9	U	20	3.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4-Chloroaniline	5.8	U	40	5.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4-Chloro-3-methylphenol	16	U	20	16	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2-Methylnaphthalene	2.7	U	17	2.7	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Hexachlorocyclopentadiene	4.6	U	17	4.6	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2,4,6-Trichlorophenol	2.7	U	25	2.7	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2,4,5-Trichlorophenol	10	U	25	10	ug/Kg		05/14/12 11:18	05/14/12 15:17	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-79176/1-A

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79176

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	1.2	U	17	1.2	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2-Nitroaniline	4.9	U	20	4.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Dimethyl phthalate	4.9	U	17	4.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Acenaphthylene	1.0	U	17	1.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2,6-Dinitrotoluene	2.9	U	17	2.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
3-Nitroaniline	7.1	U	20	7.1	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Acenaphthene	1.4	U	17	1.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2,4-Dinitrophenol	4.7	U	100	4.7	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4-Nitrophenol	5.1	U	200	5.1	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Dibenzofuran	1.8	U	17	1.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
2,4-Dinitrotoluene	3.6	U	30	3.6	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Diethyl phthalate	111		17	8.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4-Chlorophenyl phenyl ether	1.8	U	20	1.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Fluorene	2.4	U	17	2.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4-Nitroaniline	11	U	20	11	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4,6-Dinitro-2-methylphenol	5.0	U	170	5.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
4-Bromophenyl phenyl ether	2.8	U	10	2.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Hexachlorobenzene	1.5	U	17	1.5	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Pentachlorophenol	4.0	U	83	4.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Phenanthrene	4.9	U	17	4.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Anthracene	1.3	U	17	1.3	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Di-n-butyl phthalate	17.0	J	20	2.6	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Fluoranthene	3.1	U	17	3.1	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Pyrene	1.8	U	17	1.8	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Butyl benzyl phthalate	33.8		20	6.2	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
3,3'-Dichlorobenzidine	10	U	30	10	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzo[a]anthracene	1.4	U	17	1.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Bis(2-ethylhexyl) phthalate	5.4	U	25	5.4	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Chrysene	1.0	U	17	1.0	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Di-n-octyl phthalate	1.9	U	30	1.9	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzo[b]fluoranthene	1.7	U	30	1.7	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzo[k]fluoranthene	1.5	U	30	1.5	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzo[a]pyrene	1.6	U	17	1.6	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Indeno[1,2,3-cd]pyrene	3.5	U	25	3.5	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Dibenz(a,h)anthracene	3.6	U	20	3.6	ug/Kg		05/14/12 11:18	05/14/12 15:17	1
Benzo[g,h,i]perylene	5.1	U	20	5.1	ug/Kg		05/14/12 11:18	05/14/12 15:17	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	68		23 - 96	05/14/12 11:18	05/14/12 15:17	1
Phenol-d6	69		23 - 99	05/14/12 11:18	05/14/12 15:17	1
Nitrobenzene-d5	66		36 - 98	05/14/12 11:18	05/14/12 15:17	1
2-Fluorobiphenyl	75		48 - 105	05/14/12 11:18	05/14/12 15:17	1
2,4,6-Tribromophenol	63		38 - 111	05/14/12 11:18	05/14/12 15:17	1
Terphenyl-d14	76		56 - 123	05/14/12 11:18	05/14/12 15:17	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-79176/2-A

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79176

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aniline	332	211		ug/Kg		64	15 - 91
Phenol	332	258		ug/Kg		78	33 - 122
Bis(2-chloroethyl)ether	332	247		ug/Kg		74	44 - 119
2-Chlorophenol	332	261		ug/Kg		79	54 - 119
Benzyl alcohol	332	282		ug/Kg		85	25 - 141
Bis(2-chloroisopropyl) ether	332	212		ug/Kg		64	51 - 115
3 & 4 Methylphenol	332	280		ug/Kg		84	44 - 126
N-Nitrosodi-n-propylamine	332	266		ug/Kg		80	43 - 140
Hexachloroethane	332	250		ug/Kg		75	36 - 116
Nitrobenzene	332	243		ug/Kg		73	53 - 123
Isophorone	332	243		ug/Kg		73	49 - 115
2-Nitrophenol	332	263		ug/Kg		79	50 - 112
2,4-Dimethylphenol	332	271		ug/Kg		82	36 - 124
Bis(2-chloroethoxy)methane	332	264		ug/Kg		80	54 - 114
2,4-Dichlorophenol	332	280		ug/Kg		85	54 - 119
4-Chloroaniline	332	263		ug/Kg		79	42 - 122
4-Chloro-3-methylphenol	332	289		ug/Kg		87	54 - 119
2-Methylnaphthalene	332	270		ug/Kg		82	54 - 130
Hexachlorocyclopentadiene	332	187		ug/Kg		56	33 - 119
2,4,6-Trichlorophenol	332	276		ug/Kg		83	59 - 134
2,4,5-Trichlorophenol	332	291		ug/Kg		88	59 - 136
2-Chloronaphthalene	332	258		ug/Kg		78	50 - 123
2-Nitroaniline	332	248		ug/Kg		75	49 - 149
Dimethyl phthalate	332	288		ug/Kg		87	58 - 126
Acenaphthylene	332	265		ug/Kg		80	51 - 122
2,6-Dinitrotoluene	332	277		ug/Kg		84	53 - 116
3-Nitroaniline	332	252		ug/Kg		76	45 - 133
Acenaphthene	332	251		ug/Kg		76	58 - 125
2,4-Dinitrophenol	332	318		ug/Kg		96	25 - 117
4-Nitrophenol	332	269		ug/Kg		81	20 - 132
Dibenzofuran	332	272		ug/Kg		82	54 - 119
2,4-Dinitrotoluene	332	286		ug/Kg		86	53 - 123
Diethyl phthalate	332	382		ug/Kg		115	55 - 126
4-Chlorophenyl phenyl ether	332	282		ug/Kg		85	57 - 126
Fluorene	332	281		ug/Kg		85	52 - 147
4-Nitroaniline	332	266		ug/Kg		80	48 - 138
4,6-Dinitro-2-methylphenol	332	198		ug/Kg		60	34 - 124
4-Bromophenyl phenyl ether	332	296		ug/Kg		89	56 - 126
Hexachlorobenzene	332	289		ug/Kg		87	59 - 122
Pentachlorophenol	332	249		ug/Kg		75	17 - 124
Phenanthrene	332	288		ug/Kg		87	55 - 120
Anthracene	332	272		ug/Kg		82	52 - 120
Di-n-butyl phthalate	332	302		ug/Kg		91	61 - 124
Fluoranthene	332	294		ug/Kg		89	56 - 123
Pyrene	332	265		ug/Kg		80	48 - 131
Butyl benzyl phthalate	332	313		ug/Kg		94	43 - 135
3,3'-Dichlorobenzidine	332	283		ug/Kg		85	18 - 172
Benzo[a]anthracene	332	269		ug/Kg		81	49 - 124
Bis(2-ethylhexyl) phthalate	332	267		ug/Kg		80	55 - 136

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-79176/2-A

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79176

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	332	266		ug/Kg		80	50 - 123
Di-n-octyl phthalate	332	298		ug/Kg		90	45 - 135
Benzo[b]fluoranthene	332	293		ug/Kg		88	58 - 130
Benzo[k]fluoranthene	332	302		ug/Kg		91	56 - 129
Benzo[a]pyrene	332	298		ug/Kg		90	58 - 123
Indeno[1,2,3-cd]pyrene	332	231		ug/Kg		70	40 - 147
Dibenz(a,h)anthracene	332	313		ug/Kg		94	55 - 141
Benzo[g,h,i]perylene	332	322		ug/Kg		97	50 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol	67		23 - 96
Phenol-d6	74		23 - 99
Nitrobenzene-d5	70		36 - 98
2-Fluorobiphenyl	77		48 - 105
2,4,6-Tribromophenol	78		38 - 111
Terphenyl-d14	79		56 - 123

Lab Sample ID: 600-54676-3 MS

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: MW-21 (14-15)

Prep Type: Total/NA

Prep Batch: 79176

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aniline	3.4	U	374	236		ug/Kg	✱	63	12 - 88
Phenol	4.8	U	374	286		ug/Kg	✱	77	31 - 121
Bis(2-chloroethyl)ether	1.9	U	374	274		ug/Kg	✱	73	28 - 120
2-Chlorophenol	2.2	U	374	295		ug/Kg	✱	79	21 - 130
Benzyl alcohol	6.6	U	374	337		ug/Kg	✱	90	27 - 128
Bis(2-chloroisopropyl) ether	9.9	U	374	248		ug/Kg	✱	66	50 - 130
3 & 4 Methylphenol	3.1	U	374	319		ug/Kg	✱	85	30 - 130
N-Nitrosodi-n-propylamine	2.5	U	374	365		ug/Kg	✱	97	34 - 115
Hexachloroethane	2.6	U	374	272		ug/Kg	✱	73	31 - 113
Nitrobenzene	3.3	U	374	276		ug/Kg	✱	74	29 - 118
Isophorone	1.1	U	374	279		ug/Kg	✱	75	33 - 125
2-Nitrophenol	4.4	U	374	307		ug/Kg	✱	82	30 - 130
2,4-Dimethylphenol	9.7	U	374	320		ug/Kg	✱	86	29 - 122
Bis(2-chloroethoxy)methane	1.6	U	374	295		ug/Kg	✱	79	33 - 119
2,4-Dichlorophenol	4.4	U	374	315		ug/Kg	✱	84	35 - 121
4-Chloroaniline	6.5	U	374	312		ug/Kg	✱	83	15 - 112
4-Chloro-3-methylphenol	18	U	374	395		ug/Kg	✱	106	26 - 132
2-Methylnaphthalene	820		374	896	F	ug/Kg	✱	19	32 - 136
Hexachlorocyclopentadiene	5.2	U	374	201		ug/Kg	✱	54	10 - 118
2,4,6-Trichlorophenol	3.0	U	374	323		ug/Kg	✱	86	30 - 130
2,4,5-Trichlorophenol	11	U	374	328		ug/Kg	✱	88	30 - 130
2-Chloronaphthalene	1.4	U	374	295		ug/Kg	✱	79	34 - 126
2-Nitroaniline	5.5	U	374	308		ug/Kg	✱	82	38 - 130
Dimethyl phthalate	5.5	U	374	298		ug/Kg	✱	80	40 - 130
Acenaphthylene	1.1	U	374	323		ug/Kg	✱	86	32 - 137
2,6-Dinitrotoluene	3.3	U	374	345		ug/Kg	✱	92	30 - 124
3-Nitroaniline	8.0	U	374	290		ug/Kg	✱	77	22 - 124

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54676-3 MS

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: MW-21 (14-15)

Prep Type: Total/NA

Prep Batch: 79176

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	1.6	U	374	318		ug/Kg	✱	85	25 - 134
2,4-Dinitrophenol	5.3	U	374	351		ug/Kg	✱	94	10 - 121
4-Nitrophenol	5.7	U	374	704	F	ug/Kg	✱	188	25 - 122
Dibenzofuran	85		374	345		ug/Kg	✱	69	35 - 125
2,4-Dinitrotoluene	4.1	U	374	320		ug/Kg	✱	86	10 - 129
Diethyl phthalate	9.5	U	374	317		ug/Kg	✱	85	41 - 129
4-Chlorophenyl phenyl ether	2.0	U	374	329		ug/Kg	✱	88	32 - 132
Fluorene	200		374	428		ug/Kg	✱	62	36 - 122
4-Nitroaniline	13	U	374	269		ug/Kg	✱	72	21 - 122
4,6-Dinitro-2-methylphenol	5.6	U	374	251		ug/Kg	✱	67	10 - 104
4-Bromophenyl phenyl ether	3.2	U	374	341		ug/Kg	✱	91	41 - 123
Hexachlorobenzene	1.7	U	374	302		ug/Kg	✱	81	40 - 123
Pentachlorophenol	4.5	U	374	289		ug/Kg	✱	77	25 - 124
Phenanthrene	200		374	425		ug/Kg	✱	59	26 - 126
Anthracene	1.4	U	374	318		ug/Kg	✱	85	35 - 115
Di-n-butyl phthalate	2.9	U	374	325		ug/Kg	✱	87	41 - 126
Fluoranthene	11	J	374	331		ug/Kg	✱	86	37 - 132
Pyrene	16	J	374	299		ug/Kg	✱	76	28 - 138
Butyl benzyl phthalate	7.0	U	374	319		ug/Kg	✱	85	41 - 139
3,3'-Dichlorobenzidine	11	U	374	345		ug/Kg	✱	92	14 - 132
Benzo[a]anthracene	1.6	U	374	310		ug/Kg	✱	83	38 - 128
Bis(2-ethylhexyl) phthalate	6.0	U	374	292		ug/Kg	✱	78	44 - 139
Chrysene	1.1	U	374	302		ug/Kg	✱	81	36 - 130
Di-n-octyl phthalate	2.1	U	374	334		ug/Kg	✱	89	36 - 152
Benzo[b]fluoranthene	1.9	U	374	356		ug/Kg	✱	95	40 - 131
Benzo[k]fluoranthene	1.7	U	374	308		ug/Kg	✱	82	33 - 137
Benzo[a]pyrene	1.8	U	374	327		ug/Kg	✱	87	30 - 130
Indeno[1,2,3-cd]pyrene	3.9	U	374	385		ug/Kg	✱	103	30 - 112
Dibenz(a,h)anthracene	4.1	U	374	348		ug/Kg	✱	93	19 - 125
Benzo[g,h,i]perylene	5.7	U	374	378		ug/Kg	✱	101	34 - 110

Surrogate	MS %Recovery	MS Qualifier	Limits
2-Fluorophenol	70		23 - 96
Phenol-d6	72		23 - 99
Nitrobenzene-d5	76		36 - 98
2-Fluorobiphenyl	74		48 - 105
2,4,6-Tribromophenol	79		38 - 111
Terphenyl-d14	73		56 - 123

Lab Sample ID: 600-54676-3 MSD

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: MW-21 (14-15)

Prep Type: Total/NA

Prep Batch: 79176

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Aniline	3.4	U	375	278		ug/Kg	✱	74	12 - 88	16	30
Phenol	4.8	U	375	352		ug/Kg	✱	94	31 - 121	21	30
Bis(2-chloroethyl)ether	1.9	U	375	321		ug/Kg	✱	86	28 - 120	16	30
2-Chlorophenol	2.2	U	375	336		ug/Kg	✱	90	21 - 130	13	30
Benzyl alcohol	6.6	U	375	369		ug/Kg	✱	98	27 - 128	9	30

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54676-3 MSD

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: MW-21 (14-15)

Prep Type: Total/NA

Prep Batch: 79176

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Bis(2-chloroisopropyl) ether	9.9	U	375	277		ug/Kg	✱	74	50 - 130	11	30
3 & 4 Methylphenol	3.1	U	375	360		ug/Kg	✱	96	30 - 130	12	30
N-Nitrosodi-n-propylamine	2.5	U	375	456	F	ug/Kg	✱	122	34 - 115	22	30
Hexachloroethane	2.6	U	375	327		ug/Kg	✱	87	31 - 113	18	30
Nitrobenzene	3.3	U	375	300		ug/Kg	✱	80	29 - 118	8	30
Isophorone	1.1	U	375	312		ug/Kg	✱	83	33 - 125	11	30
2-Nitrophenol	4.4	U	375	363		ug/Kg	✱	97	30 - 130	17	30
2,4-Dimethylphenol	9.7	U	375	349		ug/Kg	✱	93	29 - 122	9	30
Bis(2-chloroethoxy)methane	1.6	U	375	336		ug/Kg	✱	90	33 - 119	13	30
2,4-Dichlorophenol	4.4	U	375	355		ug/Kg	✱	95	35 - 121	12	30
4-Chloroaniline	6.5	U	375	333		ug/Kg	✱	89	15 - 112	6	30
4-Chloro-3-methylphenol	18	U	375	430		ug/Kg	✱	115	26 - 132	9	30
2-Methylnaphthalene	820		375	1070	E	ug/Kg	✱	66	32 - 136	18	30
Hexachlorocyclopentadiene	5.2	U	375	209		ug/Kg	✱	56	10 - 118	4	30
2,4,6-Trichlorophenol	3.0	U	375	337		ug/Kg	✱	90	30 - 130	4	30
2,4,5-Trichlorophenol	11	U	375	345		ug/Kg	✱	92	30 - 130	5	30
2-Chloronaphthalene	1.4	U	375	335		ug/Kg	✱	89	34 - 126	13	30
2-Nitroaniline	5.5	U	375	334		ug/Kg	✱	89	38 - 130	8	30
Dimethyl phthalate	5.5	U	375	317		ug/Kg	✱	84	40 - 130	6	30
Acenaphthylene	1.1	U	375	343		ug/Kg	✱	92	32 - 137	6	30
2,6-Dinitrotoluene	3.3	U	375	472	F	ug/Kg	✱	126	30 - 124	31	30
3-Nitroaniline	8.0	U	375	325		ug/Kg	✱	87	22 - 124	11	30
Acenaphthene	1.6	U	375	340		ug/Kg	✱	91	25 - 134	7	30
2,4-Dinitrophenol	5.3	U	375	367		ug/Kg	✱	98	10 - 121	4	30
4-Nitrophenol	5.7	U	375	402	F	ug/Kg	✱	107	25 - 122	55	30
Dibenzofuran	85		375	398		ug/Kg	✱	83	35 - 125	14	30
2,4-Dinitrotoluene	4.1	U	375	398		ug/Kg	✱	106	10 - 129	22	30
Diethyl phthalate	9.5	U	375	336		ug/Kg	✱	90	41 - 129	6	30
4-Chlorophenyl phenyl ether	2.0	U	375	341		ug/Kg	✱	91	32 - 132	4	30
Fluorene	200		375	520		ug/Kg	✱	86	36 - 122	19	30
4-Nitroaniline	13	U	375	324		ug/Kg	✱	86	21 - 122	18	30
4,6-Dinitro-2-methylphenol	5.6	U	375	262		ug/Kg	✱	70	10 - 104	4	30
4-Bromophenyl phenyl ether	3.2	U	375	374		ug/Kg	✱	100	41 - 123	9	30
Hexachlorobenzene	1.7	U	375	338		ug/Kg	✱	90	40 - 123	11	30
Pentachlorophenol	4.5	U	375	297		ug/Kg	✱	79	25 - 124	3	30
Phenanthrene	200		375	527		ug/Kg	✱	86	26 - 126	21	30
Anthracene	1.4	U	375	354		ug/Kg	✱	95	35 - 115	11	30
Di-n-butyl phthalate	2.9	U	375	348		ug/Kg	✱	93	41 - 126	7	30
Fluoranthene	11	J	375	378		ug/Kg	✱	98	37 - 132	13	30
Pyrene	16	J	375	318		ug/Kg	✱	81	28 - 138	6	30
Butyl benzyl phthalate	7.0	U	375	335		ug/Kg	✱	89	41 - 139	5	30
3,3'-Dichlorobenzidine	11	U	375	374		ug/Kg	✱	100	14 - 132	8	30
Benzo[a]anthracene	1.6	U	375	329		ug/Kg	✱	88	38 - 128	6	30
Bis(2-ethylhexyl) phthalate	6.0	U	375	314		ug/Kg	✱	84	44 - 139	7	30
Chrysene	1.1	U	375	325		ug/Kg	✱	87	36 - 130	7	30
Di-n-octyl phthalate	2.1	U	375	350		ug/Kg	✱	93	36 - 152	5	30
Benzo[b]fluoranthene	1.9	U	375	344		ug/Kg	✱	92	40 - 131	4	30
Benzo[k]fluoranthene	1.7	U	375	299		ug/Kg	✱	80	33 - 137	3	30
Benzo[a]pyrene	1.8	U	375	348		ug/Kg	✱	93	30 - 130	6	30
Indeno[1,2,3-cd]pyrene	3.9	U	375	334		ug/Kg	✱	89	30 - 112	14	30

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54676-3 MSD

Matrix: Solid

Analysis Batch: 79269

Client Sample ID: MW-21 (14-15)

Prep Type: Total/NA

Prep Batch: 79176

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibenz(a,h)anthracene	4.1	U	375	381		ug/Kg	✱	102	19 - 125	9	30
Benzo[g,h,i]perylene	5.7	U	375	394		ug/Kg	✱	105	34 - 110	4	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
2-Fluorophenol	74		23 - 96
Phenol-d6	80		23 - 99
Nitrobenzene-d5	86		36 - 98
2-Fluorobiphenyl	80		48 - 105
2,4,6-Tribromophenol	82		38 - 111
Terphenyl-d14	76		56 - 123

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-79083/1-A

Matrix: Solid

Analysis Batch: 79161

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79083

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	3.8	U	10	3.8	mg/Kg		05/11/12 11:58	05/11/12 20:51	1
>C12-C28	4.1	U	10	4.1	mg/Kg		05/11/12 11:58	05/11/12 20:51	1
>C28-C35	4.1	U	10	4.1	mg/Kg		05/11/12 11:58	05/11/12 20:51	1
C6-C35	7.5	U	10	7.5	mg/Kg		05/11/12 11:58	05/11/12 20:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	87		70 - 130	05/11/12 11:58	05/11/12 20:51	1

Lab Sample ID: LCS 600-79083/2-A

Matrix: Solid

Analysis Batch: 79161

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79083

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	250	281		mg/Kg		113	75 - 125
>C12-C28	250	263		mg/Kg		105	75 - 125
C6-C35	500	544		mg/Kg		109	75 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	107		70 - 130

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-78888/1-A

Matrix: Solid

Analysis Batch: 78964

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 78888

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.22	U	1.0	0.22	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Aluminum	0.994	J	25	0.30	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Barium	0.142	J	1.0	0.030	mg/Kg		05/09/12 11:50	05/10/12 09:23	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 600-78888/1-A

Matrix: Solid

Analysis Batch: 78964

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 78888

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.068	U	0.50	0.068	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Chromium	0.051	U	0.50	0.051	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Copper	0.17	U	0.50	0.17	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Manganese	0.038	U	1.5	0.038	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Nickel	0.12	U	1.0	0.12	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Lead	0.10	U	0.50	0.10	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Selenium	0.26	U	2.0	0.26	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Thallium	0.28	U	1.5	0.28	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Vanadium	0.079	U	0.50	0.079	mg/Kg		05/09/12 11:50	05/10/12 09:23	1
Zinc	0.653	J	1.5	0.11	mg/Kg		05/09/12 11:50	05/10/12 09:23	1

Lab Sample ID: LCS 600-78888/2-A

Matrix: Solid

Analysis Batch: 78964

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 78888

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	138	134		mg/Kg		97	78 - 122
Aluminum	10700	8000		mg/Kg		75	42 - 158
Barium	269	261		mg/Kg		97	80 - 120
Cobalt	142	138		mg/Kg		97	82 - 118
Chromium	105	101		mg/Kg		96	81 - 119
Copper	110	109		mg/Kg		99	84 - 116
Manganese	539	501		mg/Kg		93	81 - 119
Nickel	130	125		mg/Kg		96	81 - 119
Lead	144	137		mg/Kg		95	79 - 121
Selenium	200	193		mg/Kg		97	80 - 120
Thallium	161	161		mg/Kg		100	79 - 120
Vanadium	67.0	61.2		mg/Kg		91	79 - 121
Zinc	223	215		mg/Kg		96	79 - 121

Lab Sample ID: 600-54676-3 MS

Matrix: Solid

Analysis Batch: 78964

Client Sample ID: MW-21 (14-15)

Prep Type: Total/NA

Prep Batch: 78888

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	6.3		56.2	59.9		mg/Kg	⚠	95	75 - 125
Aluminum	5300	B	562	10000	4	mg/Kg	⚠	838	75 - 125
Barium	29	B	56.2	83.5		mg/Kg	⚠	97	75 - 125
Cobalt	2.3		56.2	50.3		mg/Kg	⚠	85	75 - 125
Chromium	6.3		56.2	56.6		mg/Kg	⚠	89	75 - 125
Copper	4.9		56.2	59.7		mg/Kg	⚠	97	75 - 125
Manganese	130		56.2	206	F	mg/Kg	⚠	131	75 - 125
Nickel	5.7		56.2	52.7		mg/Kg	⚠	84	75 - 125
Lead	6.0		56.2	54.9		mg/Kg	⚠	87	75 - 125
Selenium	0.28	U	56.2	49.0		mg/Kg	⚠	87	75 - 125
Thallium	0.30	U	56.2	49.8		mg/Kg	⚠	88	75 - 125
Vanadium	16		56.2	70.5		mg/Kg	⚠	97	75 - 125
Zinc	13	B	56.2	71.6		mg/Kg	⚠	104	75 - 125

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-54676-3 MSD

Matrix: Solid

Analysis Batch: 78964

Client Sample ID: MW-21 (14-15)

Prep Type: Total/NA

Prep Batch: 78888

Analyte	Sample		Spike Added	MSD		Unit	D	%Rec	%Rec.		RPD	Limit
	Result	Qualifier		Result	Qualifier				Limits			
Arsenic	6.3		54.6	57.2		mg/Kg	✱	93	75 - 125		5	20
Aluminum	5300	B	546	9010	4	mg/Kg	✱	680	75 - 125		11	20
Barium	29	B	54.6	80.0		mg/Kg	✱	93	75 - 125		4	20
Cobalt	2.3		54.6	48.1		mg/Kg	✱	84	75 - 125		4	20
Chromium	6.3		54.6	54.1		mg/Kg	✱	88	75 - 125		4	20
Copper	4.9		54.6	57.0		mg/Kg	✱	95	75 - 125		5	20
Manganese	130		54.6	202	F	mg/Kg	✱	126	75 - 125		2	20
Nickel	5.7		54.6	49.8		mg/Kg	✱	81	75 - 125		6	20
Lead	6.0		54.6	52.8		mg/Kg	✱	86	75 - 125		4	20
Selenium	0.28	U	54.6	47.9		mg/Kg	✱	88	75 - 125		2	20
Thallium	0.30	U	54.6	48.3		mg/Kg	✱	89	75 - 125		3	20
Vanadium	16		54.6	65.2		mg/Kg	✱	90	75 - 125		8	20
Zinc	13	B	54.6	68.4		mg/Kg	✱	101	75 - 125		5	20

Lab Sample ID: 600-54676-3 DU

Matrix: Solid

Analysis Batch: 78964

Client Sample ID: MW-21 (14-15)

Prep Type: Total/NA

Prep Batch: 78888

Analyte	Sample		DU Result	DU Qualifier	Unit	D	RPD	Limit
	Result	Qualifier						
Arsenic	6.3		6.04		mg/Kg	✱	4	20
Aluminum	5300	B	5170		mg/Kg	✱	2	20
Barium	29	B	27.5		mg/Kg	✱	6	20
Cobalt	2.3		2.14		mg/Kg	✱	9	20
Chromium	6.3		6.56		mg/Kg	✱	4	20
Copper	4.9		4.79		mg/Kg	✱	3	20
Manganese	130		140		mg/Kg	✱	5	20
Nickel	5.7		5.42		mg/Kg	✱	5	20
Lead	6.0		6.29		mg/Kg	✱	5	20
Selenium	0.28	U	0.29	U	mg/Kg	✱	NC	20
Thallium	0.30	U	0.31	U	mg/Kg	✱	NC	20
Vanadium	16		15.9		mg/Kg	✱	0.9	20
Zinc	13	B	13.2		mg/Kg	✱	0.6	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 600-78949/7-A

Matrix: Solid

Analysis Batch: 79029

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 78949

Analyte	MB		MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	1.7	U	50	1.7	ug/Kg		05/10/12 09:31	05/10/12 15:04	1

Lab Sample ID: LCS 600-78949/8-A ^100

Matrix: Solid

Analysis Batch: 79029

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 78949

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	
Mercury	25300	24700		ug/Kg		98	70 - 130	

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 600-54676-1 MS
Matrix: Solid
Analysis Batch: 79029

Client Sample ID: MW-21 (6-7)
Prep Type: Total/NA
Prep Batch: 78949

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	6.6	J	316	287		ug/Kg	☼	89	75 - 125

Lab Sample ID: 600-54676-1 DU
Matrix: Solid
Analysis Batch: 79029

Client Sample ID: MW-21 (6-7)
Prep Type: Total/NA
Prep Batch: 78949

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	6.6	J	5.34	J	ug/Kg	☼	21	20

Method: Moisture - Percent Moisture

Lab Sample ID: 600-54676-6 DU
Matrix: Solid
Analysis Batch: 78926

Client Sample ID: MW-22 (18-20)
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Percent Moisture	16		16		%		2.00	
Percent Solids	84		84		%		0.300	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

GC/MS VOA

Prep Batch: 78887

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	5035	
600-54676-2	MW-21 (11-12)	Total/NA	Solid	5035	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	5035	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	5035	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	5035	
600-54676-7	Dup -1	Total/NA	Solid	5035	
600-54676-7 MS	Dup -1	Total/NA	Solid	5035	
600-54676-7 MSD	Dup -1	Total/NA	Solid	5035	

Analysis Batch: 78972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	8260B	78887
600-54676-2	MW-21 (11-12)	Total/NA	Solid	8260B	78887
600-54676-4	MW-22 (8-10)	Total/NA	Solid	8260B	78887
600-54676-5	MW-22 (12-14)	Total/NA	Solid	8260B	78887
600-54676-6	MW-22 (18-20)	Total/NA	Solid	8260B	78887
600-54676-7	Dup -1	Total/NA	Solid	8260B	78887
600-54676-7 MS	Dup -1	Total/NA	Solid	8260B	78887
600-54676-7 MSD	Dup -1	Total/NA	Solid	8260B	78887
LCS 600-78972/3	Lab Control Sample	Total/NA	Solid	8260B	
MB 600-78972/4	Method Blank	Total/NA	Solid	8260B	

Analysis Batch: 79199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-8	Trip Blank	Total/NA	Water	8260B	
LCS 600-79199/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79199/4	Method Blank	Total/NA	Water	8260B	

Prep Batch: 79457

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-79457/1-A	Lab Control Sample	Total/NA	Solid	5035	
LCSD 600-79457/2-A	Lab Control Sample Dup	Total/NA	Solid	5035	
MB 600-79457/3-A	Method Blank	Total/NA	Solid	5035	

Prep Batch: 79461

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-2 - DL	MW-21 (11-12)	Total/NA	Solid	5035	
600-54676-3 - DL	MW-21 (14-15)	Total/NA	Solid	5035	

Analysis Batch: 79558

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-2 - DL	MW-21 (11-12)	Total/NA	Solid	8260B	79461
600-54676-3 - DL	MW-21 (14-15)	Total/NA	Solid	8260B	79461
LCS 600-79457/1-A	Lab Control Sample	Total/NA	Solid	8260B	79457
LCSD 600-79457/2-A	Lab Control Sample Dup	Total/NA	Solid	8260B	79457
MB 600-79457/3-A	Method Blank	Total/NA	Solid	8260B	79457

GC/MS Semi VOA

Prep Batch: 79176

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	3550B	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

GC/MS Semi VOA (Continued)

Prep Batch: 79176 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-2	MW-21 (11-12)	Total/NA	Solid	3550B	
600-54676-3	MW-21 (14-15)	Total/NA	Solid	3550B	
600-54676-3 MS	MW-21 (14-15)	Total/NA	Solid	3550B	
600-54676-3 MSD	MW-21 (14-15)	Total/NA	Solid	3550B	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	3550B	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	3550B	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	3550B	
600-54676-7	Dup -1	Total/NA	Solid	3550B	
LCS 600-79176/2-A	Lab Control Sample	Total/NA	Solid	3550B	
MB 600-79176/1-A	Method Blank	Total/NA	Solid	3550B	

Analysis Batch: 79269

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	8270C LL	79176
600-54676-2	MW-21 (11-12)	Total/NA	Solid	8270C LL	79176
600-54676-3	MW-21 (14-15)	Total/NA	Solid	8270C LL	79176
600-54676-3 MS	MW-21 (14-15)	Total/NA	Solid	8270C LL	79176
600-54676-3 MSD	MW-21 (14-15)	Total/NA	Solid	8270C LL	79176
600-54676-4	MW-22 (8-10)	Total/NA	Solid	8270C LL	79176
600-54676-5	MW-22 (12-14)	Total/NA	Solid	8270C LL	79176
600-54676-6	MW-22 (18-20)	Total/NA	Solid	8270C LL	79176
600-54676-7	Dup -1	Total/NA	Solid	8270C LL	79176
LCS 600-79176/2-A	Lab Control Sample	Total/NA	Solid	8270C LL	79176
MB 600-79176/1-A	Method Blank	Total/NA	Solid	8270C LL	79176

GC Semi VOA

Prep Batch: 79083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	TX_1005_S_Pre p	
600-54676-2	MW-21 (11-12)	Total/NA	Solid	TX_1005_S_Pre p	
600-54676-3	MW-21 (14-15)	Total/NA	Solid	TX_1005_S_Pre p	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	TX_1005_S_Pre p	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	TX_1005_S_Pre p	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	TX_1005_S_Pre p	
600-54676-7	Dup -1	Total/NA	Solid	TX_1005_S_Pre p	
LCS 600-79083/2-A	Lab Control Sample	Total/NA	Solid	TX_1005_S_Pre p	
MB 600-79083/1-A	Method Blank	Total/NA	Solid	TX_1005_S_Pre p	

Analysis Batch: 79161

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	TX 1005	79083
600-54676-2	MW-21 (11-12)	Total/NA	Solid	TX 1005	79083
600-54676-3	MW-21 (14-15)	Total/NA	Solid	TX 1005	79083
600-54676-4	MW-22 (8-10)	Total/NA	Solid	TX 1005	79083

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

GC Semi VOA (Continued)

Analysis Batch: 79161 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-5	MW-22 (12-14)	Total/NA	Solid	TX 1005	79083
600-54676-6	MW-22 (18-20)	Total/NA	Solid	TX 1005	79083
600-54676-7	Dup -1	Total/NA	Solid	TX 1005	79083
LCS 600-79083/2-A	Lab Control Sample	Total/NA	Solid	TX 1005	79083
MB 600-79083/1-A	Method Blank	Total/NA	Solid	TX 1005	79083

Metals

Prep Batch: 78888

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	3050B	
600-54676-2	MW-21 (11-12)	Total/NA	Solid	3050B	
600-54676-3	MW-21 (14-15)	Total/NA	Solid	3050B	
600-54676-3 DU	MW-21 (14-15)	Total/NA	Solid	3050B	
600-54676-3 MS	MW-21 (14-15)	Total/NA	Solid	3050B	
600-54676-3 MSD	MW-21 (14-15)	Total/NA	Solid	3050B	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	3050B	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	3050B	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	3050B	
600-54676-7	Dup -1	Total/NA	Solid	3050B	
LCS 600-78888/2-A	Lab Control Sample	Total/NA	Solid	3050B	
MB 600-78888/1-A	Method Blank	Total/NA	Solid	3050B	

Prep Batch: 78949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	7471A	
600-54676-1 DU	MW-21 (6-7)	Total/NA	Solid	7471A	
600-54676-1 MS	MW-21 (6-7)	Total/NA	Solid	7471A	
600-54676-2	MW-21 (11-12)	Total/NA	Solid	7471A	
600-54676-3	MW-21 (14-15)	Total/NA	Solid	7471A	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	7471A	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	7471A	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	7471A	
600-54676-7	Dup -1	Total/NA	Solid	7471A	
LCS 600-78949/8-A ^100	Lab Control Sample	Total/NA	Solid	7471A	
MB 600-78949/7-A	Method Blank	Total/NA	Solid	7471A	

Analysis Batch: 78964

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	6010B	78888
600-54676-2	MW-21 (11-12)	Total/NA	Solid	6010B	78888
600-54676-3	MW-21 (14-15)	Total/NA	Solid	6010B	78888
600-54676-3 DU	MW-21 (14-15)	Total/NA	Solid	6010B	78888
600-54676-3 MS	MW-21 (14-15)	Total/NA	Solid	6010B	78888
600-54676-3 MSD	MW-21 (14-15)	Total/NA	Solid	6010B	78888
600-54676-4	MW-22 (8-10)	Total/NA	Solid	6010B	78888
600-54676-5	MW-22 (12-14)	Total/NA	Solid	6010B	78888
600-54676-6	MW-22 (18-20)	Total/NA	Solid	6010B	78888
600-54676-7	Dup -1	Total/NA	Solid	6010B	78888
LCS 600-78888/2-A	Lab Control Sample	Total/NA	Solid	6010B	78888
MB 600-78888/1-A	Method Blank	Total/NA	Solid	6010B	78888

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Metals (Continued)

Analysis Batch: 79029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	7471A	78949
600-54676-1 DU	MW-21 (6-7)	Total/NA	Solid	7471A	78949
600-54676-1 MS	MW-21 (6-7)	Total/NA	Solid	7471A	78949
600-54676-2	MW-21 (11-12)	Total/NA	Solid	7471A	78949
600-54676-3	MW-21 (14-15)	Total/NA	Solid	7471A	78949
600-54676-4	MW-22 (8-10)	Total/NA	Solid	7471A	78949
600-54676-5	MW-22 (12-14)	Total/NA	Solid	7471A	78949
600-54676-6	MW-22 (18-20)	Total/NA	Solid	7471A	78949
600-54676-7	Dup -1	Total/NA	Solid	7471A	78949
LCS 600-78949/8-A ^100	Lab Control Sample	Total/NA	Solid	7471A	78949
MB 600-78949/7-A	Method Blank	Total/NA	Solid	7471A	78949

General Chemistry

Analysis Batch: 78926

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54676-1	MW-21 (6-7)	Total/NA	Solid	Moisture	
600-54676-2	MW-21 (11-12)	Total/NA	Solid	Moisture	
600-54676-3	MW-21 (14-15)	Total/NA	Solid	Moisture	
600-54676-4	MW-22 (8-10)	Total/NA	Solid	Moisture	
600-54676-5	MW-22 (12-14)	Total/NA	Solid	Moisture	
600-54676-6	MW-22 (18-20)	Total/NA	Solid	Moisture	
600-54676-6 DU	MW-22 (18-20)	Total/NA	Solid	Moisture	
600-54676-7	Dup -1	Total/NA	Solid	Moisture	

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (6-7)

Date Collected: 05/07/12 09:30

Date Received: 05/09/12 09:28

Lab Sample ID: 600-54676-1

Matrix: Solid

Percent Solids: 77.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			78887	05/09/12 09:29	WS	TAL HOU
Total/NA	Analysis	8260B		1.03	78972	05/09/12 13:29	WS	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 16:09	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/11/12 23:45	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 09:30	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 15:49	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: MW-21 (11-12)

Date Collected: 05/07/12 09:35

Date Received: 05/09/12 09:28

Lab Sample ID: 600-54676-2

Matrix: Solid

Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			78887	05/09/12 09:29	WS	TAL HOU
Total/NA	Analysis	8260B		0.89	78972	05/09/12 15:27	WS	TAL HOU
Total/NA	Prep	5035	DL		79461	05/17/12 10:00	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	1	79558	05/17/12 20:59	KLV	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 16:35	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/12/12 00:20	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 09:34	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 15:55	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: MW-21 (14-15)

Date Collected: 05/07/12 09:40

Date Received: 05/09/12 09:28

Lab Sample ID: 600-54676-3

Matrix: Solid

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035	DL		79461	05/17/12 10:00	KLV	TAL HOU
Total/NA	Analysis	8260B	DL	1	79558	05/17/12 20:36	KLV	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 17:01	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/12/12 00:55	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 09:38	DCL	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-21 (14-15)

Lab Sample ID: 600-54676-3

Date Collected: 05/07/12 09:40

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 88.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 16:01	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: MW-22 (8-10)

Lab Sample ID: 600-54676-4

Date Collected: 05/07/12 13:45

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 83.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			78887	05/09/12 11:30	WS	TAL HOU
Total/NA	Analysis	8260B		1.09	78972	05/09/12 12:40	WS	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 18:19	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/12/12 02:05	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 09:53	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 16:03	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: MW-22 (12-14)

Lab Sample ID: 600-54676-5

Date Collected: 05/07/12 13:55

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			78887	05/09/12 11:30	WS	TAL HOU
Total/NA	Analysis	8260B		1.05	78972	05/09/12 13:05	WS	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 18:45	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/14/12 10:56	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 09:57	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 16:05	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: MW-22 (18-20)

Lab Sample ID: 600-54676-6

Date Collected: 05/07/12 14:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			78887	05/09/12 11:30	WS	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Client Sample ID: MW-22 (18-20)

Lab Sample ID: 600-54676-6

Date Collected: 05/07/12 14:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 84.1

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		0.79	78972	05/09/12 11:54	WS	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 19:11	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/14/12 11:30	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 10:09	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 16:07	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: Dup -1

Lab Sample ID: 600-54676-7

Date Collected: 05/07/12 00:00

Matrix: Solid

Date Received: 05/09/12 09:28

Percent Solids: 90.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			78887	05/09/12 11:30	WS	TAL HOU
Total/NA	Analysis	8260B		1.09	78972	05/09/12 12:17	WS	TAL HOU
Total/NA	Prep	3550B			79176	05/14/12 11:18	FNC	TAL HOU
Total/NA	Analysis	8270C LL		1	79269	05/14/12 19:37	TTD	TAL HOU
Total/NA	Prep	TX_1005_S_Prep			79083	05/11/12 11:58	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79161	05/14/12 12:05	RV	TAL HOU
Total/NA	Prep	3050B			78888	05/09/12 11:50	NER	TAL HOU
Total/NA	Analysis	6010B		1	78964	05/10/12 10:13	DCL	TAL HOU
Total/NA	Prep	7471A			78949	05/10/12 09:31	SRP	TAL HOU
Total/NA	Analysis	7471A		1	79029	05/10/12 16:09	SRP	TAL HOU
Total/NA	Analysis	Moisture		1	78926	05/09/12 17:17	AS	TAL HOU

Client Sample ID: Trip Blank

Lab Sample ID: 600-54676-8

Date Collected: 05/07/12 00:00

Matrix: Water

Date Received: 05/09/12 09:28

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79199	05/14/12 17:36	DT	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Houston	Arkansas DEQ	State Program	6	88-0759
TestAmerica Houston	Louisiana	NELAC	6	30643
TestAmerica Houston	Oklahoma	State Program	6	9503
TestAmerica Houston	Texas	NELAC	6	T104704223-10-6-TX
TestAmerica Houston	USDA	Federal		P330-08-00217
TestAmerica Houston	Utah	NELAC	8	GULF

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
7471A	Mercury (CVAA)	SW846	TAL HOU
Moisture	Percent Moisture	EPA	TAL HOU

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54676-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-54676-1	MW-21 (6-7)	Solid	05/07/12 09:30	05/09/12 09:28
600-54676-2	MW-21 (11-12)	Solid	05/07/12 09:35	05/09/12 09:28
600-54676-3	MW-21 (14-15)	Solid	05/07/12 09:40	05/09/12 09:28
600-54676-4	MW-22 (8-10)	Solid	05/07/12 13:45	05/09/12 09:28
600-54676-5	MW-22 (12-14)	Solid	05/07/12 13:55	05/09/12 09:28
600-54676-6	MW-22 (18-20)	Solid	05/07/12 14:00	05/09/12 09:28
600-54676-7	Dup -1	Solid	05/07/12 00:00	05/09/12 09:28
600-54676-8	Trip Blank	Water	05/07/12 00:00	05/09/12 09:28

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

97963

TestAmerica

Client Information		Sampler: TNN		Lab PM: Kudchadkar, Sachin G		Carrier Tracking No(s):		COC No: 600-9060.1																	
Client Contact: Mr. Tim Nickels		Phone:		E-Mail: sachin.kudchadkar@testamericainc.com				Page: 1 of 1																	
Company: Pastor, Behling & Wheeler LLC				Analysis Requested				Job #:																	
Address: 2201 Double Creek Dr Suite 4004		Due Date Requested:		<div>Field Filtered Sample (Yes or No)</div> <div>Perform MS/MSD (Yes or No)</div> <div>6010B, 7470A - Metals - TOTAL</div> <div>TX_1005 - TPH: HOLD TX1005</div> <div>8260B_LL - VOC</div> <div>8270C_LL - SVOC</div> <div>Total Number of containers</div>				Preservation Codes: A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify) Other:																	
City: Round Rock		TAT Requested (days):																							
State, Zip: TX, 78664																									
Phone: 512-671-3434 (Tel) 512-671-3446 (Fax)		PO #:																							
Email: tim.nickels@powlc.com		WC #:																							
Project Name: R&H Oil		Project #: 60002002																							
Site: San Antonio		SSOW#:																							
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=waste/oil, DT=Tissue, A=Air)		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		6010B, 7470A - Metals - TOTAL		TX_1005 - TPH: HOLD TX1005		8260B_LL - VOC		8270C_LL - SVOC		Total Number of containers		Special Instructions/Note:	
mw-21 (6-7)		5/7/12		0930		G		S																	
mw-21 (11-12)		↓		0935		↓		↓																	
mw-21 (14-15)		↓		0940		↓		↓																	
mw-22 (8-10)		↓		1345		↓		↓																	
mw-22 (12-14)		↓		1355		↓		↓																	
mw-22 (18-20)		↓		1400		↓		↓																	
Dup-1		↓		-		-		↓																	
Trip Blank		-		-		-		w																	

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-54676-1

Login Number: 54676

List Source: TestAmerica Houston

List Number: 1

Creator: Fuentes Jr, Fabio

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Tel: (713)690-4444

TestAmerica Job ID: 600-54839-1

Client Project/Site: R&H Oil

For:

Pastor, Behling & Wheeler LLC

2201 Double Creek Dr

Suite 4004

Round Rock, Texas 78664

Attn: Mr. Tim Nickels



Authorized for release by:

5/30/2012 7:58:36 PM

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Metals

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Job ID: 600-54839-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-54839-1

Comments

No additional comments.

Receipt

The samples were received on 5/11/2012 10:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 4 coolers at receipt time were 3.6° C, 4.1° C, 5.5° C and 5.6° C.

Except:

The Chain of Custody was received without analysis selected for the Trip Blank, so no analyses were performed.

GC/MS VOA

Method(s) 8260B: The following samples were diluted due to the abundance of target analytes: MW-14 (600-54839-2), MW-15 (600-54839-5), MW-3 (600-54839-7), MW-12 (600-54839-6), MW-17 (600-54839-4), MW-19 (600-54839-3), MW-2 (600-54839-8), and MW-18 (600-54839-14). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The following sample was diluted due to the nature of the sample matrix (foamy): MW-4 (600-54839-9). Elevated reporting limits (RL) are provided.

Method(s) 8260B: The laboratory control sample (LCS) for batch 79199 exceeded control limits for the following analytes: Chloromethane, Dichlorodifluoromethane and 1,2-Dibromo-3-chloropropane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The laboratory control samples (LCS's) for batches 79279, 79300, 79383 and 79394 exceeded control limits for the following analyte: Dichlorodifluoromethane. This analyte was biased high in the LCS's and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The continuing calibration verification (CCV) for Bromoform, trans-1,4-Dichloro-2-butene, and 1,2-Dibromo-3-chloropropane associated with batch 79199 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 8270C LL: The following sample was diluted due to the abundance of target analytes: MW-18 (600-54839-14). Elevated reporting limits (RLs) are provided.

Method(s) 8270C LL: The following sample was diluted due to the nature of the sample matrix: MW-14 (600-54839-2). Elevated reporting limits (RLs) are provided.

Method(s) 8270C LL: Six surrogates are used for this analysis. The laboratory's SOP allows one base and one of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample(s) contained an allowable number of surrogate compounds outside limits: MW-17 (600-54839-4), MW-18 (600-54839-14). These results have been reported and qualified.

Method(s) 8270C LL: Due to the level of dilution required for the following samples, surrogate recoveries are not reported: MW-14 (600-54839-2), MW-3 (600-54839-7) and MW-18 (600-54839-14 DL).

Method(s) 8270C LL: The continuing calibration verification (CCV) for Bis(2-chloroisopropyl)ether associated with batch 79972 recovered above the upper control limit. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted.

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Job ID: 600-54839-1 (Continued)

Laboratory: TestAmerica Houston (Continued)

GC Semi VOA

Method(s) TX 1005: Surrogate recovery for the following sample was outside control limits: MW-3 (600-54839-7). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No other analytical or quality issues were noted.

Metals

Method(s) 6010B: The method blank for batch 79110 contained copper and zinc above the method detection limit. These target analyte concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B: The continuing calibration verifications (CCV's) for vanadium associated with batch 79444 recovered above the upper control limit. The samples associated with these CCV's were non-detects for the affected analyte; therefore, the data have been reported.

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-16

Lab Sample ID: 600-54839-1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.74	J	1.0	0.12	ug/L	1		8260B	Total/NA
Chloroform	2.8		1.0	0.13	ug/L	1		8260B	Total/NA
Toluene	5.1		1.0	0.15	ug/L	1		8260B	Total/NA
Ethylbenzene	2.3		1.0	0.11	ug/L	1		8260B	Total/NA
Xylenes, Total	5.4		1.0	0.26	ug/L	1		8260B	Total/NA
Styrene	0.078	J	1.0	0.070	ug/L	1		8260B	Total/NA
Isopropylbenzene	22		1.0	0.18	ug/L	1		8260B	Total/NA
N-Propylbenzene	24		1.0	0.15	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	1.1		1.0	0.10	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.42	J	1.0	0.080	ug/L	1		8260B	Total/NA
4-Isopropyltoluene	0.36	J	1.0	0.10	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	2.1		1.0	0.14	ug/L	1		8260B	Total/NA
sec-Butylbenzene	1.5		1.0	0.12	ug/L	1		8260B	Total/NA
n-Butylbenzene	1.6		1.0	0.16	ug/L	1		8260B	Total/NA
Naphthalene	18		1.0	0.32	ug/L	1		8260B	Total/NA
Benzene - DL	2100		100	8.0	ug/L	100		8260B	Total/NA
2-Methylnaphthalene	2.7		1.5	0.069	ug/L	1		8270C LL	Total/NA
C6-C12	4.9		1.9	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	4.9		1.9	0.93	mg/L	1		TX 1005	Total/NA
C6-C35	9.8		1.9	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.15		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.060	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.33		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.00090	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Manganese	1.0		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0023	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Zinc	0.0037	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-14

Lab Sample ID: 600-54839-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Ethylbenzene	1400		200	22	ug/L	200		8260B	Total/NA
Xylenes, Total	13000		200	52	ug/L	200		8260B	Total/NA
Styrene	100	J	200	14	ug/L	200		8260B	Total/NA
Isopropylbenzene	81	J	200	36	ug/L	200		8260B	Total/NA
N-Propylbenzene	110	J	200	30	ug/L	200		8260B	Total/NA
1,3,5-Trimethylbenzene	440		200	20	ug/L	200		8260B	Total/NA
1,2,4-Trimethylbenzene	1100		200	28	ug/L	200		8260B	Total/NA
Naphthalene	350		200	64	ug/L	200		8260B	Total/NA
Benzene - DL	31000		1000	80	ug/L	1000		8260B	Total/NA
Toluene - DL	28000		1000	150	ug/L	1000		8260B	Total/NA
Phenol	24	J	74	2.0	ug/L	50		8270C LL	Total/NA
3 & 4 Methylphenol	86		50	9.9	ug/L	50		8270C LL	Total/NA
2,4-Dimethylphenol	640		120	15	ug/L	50		8270C LL	Total/NA
2-Methylnaphthalene	58	J	74	3.5	ug/L	50		8270C LL	Total/NA
C6-C12	40		1.9	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	1.1	J	1.9	0.93	mg/L	1		TX 1005	Total/NA
C6-C35	41		1.9	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.33		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.070	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.44		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0078	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0017	J B	0.010	0.0015	mg/L	1		6010B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-14 (Continued)

Lab Sample ID: 600-54839-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	1.0		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0061	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Lead	0.0077	J	0.010	0.0029	mg/L	1		6010B	Total/NA
Zinc	0.0052	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-19

Lab Sample ID: 600-54839-3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	130		50	6.0	ug/L	50		8260B	Total/NA
Chloroform	13	J	50	6.5	ug/L	50		8260B	Total/NA
Toluene	26	J	50	7.5	ug/L	50		8260B	Total/NA
Ethylbenzene	510		50	5.5	ug/L	50		8260B	Total/NA
Xylenes, Total	680		50	13	ug/L	50		8260B	Total/NA
Isopropylbenzene	30	J	50	9.0	ug/L	50		8260B	Total/NA
N-Propylbenzene	48	J	50	7.5	ug/L	50		8260B	Total/NA
1,3,5-Trimethylbenzene	86		50	5.0	ug/L	50		8260B	Total/NA
1,2,4-Trimethylbenzene	300		50	7.0	ug/L	50		8260B	Total/NA
Naphthalene	180		50	16	ug/L	50		8260B	Total/NA
Benzene - DL	4400		500	40	ug/L	500		8260B	Total/NA
Phenol	3.9	J	15	0.40	ug/L	10		8270C LL	Total/NA
3 & 4 Methylphenol	2.1	J	10	2.0	ug/L	10		8270C LL	Total/NA
2-Methylnaphthalene	43		15	0.70	ug/L	10		8270C LL	Total/NA
C6-C12	4.4		1.9	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	2.4		1.9	0.93	mg/L	1		TX 1005	Total/NA
C6-C35	6.8		1.9	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.034		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.043	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.16		0.020	0.0022	mg/L	1		6010B	Total/NA
Manganese	0.66		0.010	0.00084	mg/L	1		6010B	Total/NA
Zinc	0.0090	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-17

Lab Sample ID: 600-54839-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	17	J	50	6.5	ug/L	50		8260B	Total/NA
Toluene	9.9	J	50	7.5	ug/L	50		8260B	Total/NA
Ethylbenzene	340		50	5.5	ug/L	50		8260B	Total/NA
Xylenes, Total	360		50	13	ug/L	50		8260B	Total/NA
Isopropylbenzene	22	J	50	9.0	ug/L	50		8260B	Total/NA
N-Propylbenzene	41	J	50	7.5	ug/L	50		8260B	Total/NA
1,3,5-Trimethylbenzene	98		50	5.0	ug/L	50		8260B	Total/NA
1,2,4-Trimethylbenzene	290		50	7.0	ug/L	50		8260B	Total/NA
Naphthalene	150		50	16	ug/L	50		8260B	Total/NA
Benzene - DL	2500		200	16	ug/L	200		8260B	Total/NA
Phenol	2.5	J	15	0.40	ug/L	10		8270C LL	Total/NA
2-Methylnaphthalene	22		15	0.70	ug/L	10		8270C LL	Total/NA
C6-C12	2.7		2.0	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	3.1		2.0	0.94	mg/L	1		TX 1005	Total/NA
C6-C35	5.8		2.0	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.026		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.059	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.12		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0013	J	0.010	0.00063	mg/L	1		6010B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-17 (Continued)

Lab Sample ID: 600-54839-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Manganese	0.50		0.010	0.00084	mg/L	1		6010B	Total/NA
Zinc	0.0028	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-15

Lab Sample ID: 600-54839-5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	66		10	1.2	ug/L	10		8260B	Total/NA
1,2-Dichloropropane	6.4	J	10	1.6	ug/L	10		8260B	Total/NA
Chloroform	7.5	J	10	1.3	ug/L	10		8260B	Total/NA
Toluene	66		10	1.5	ug/L	10		8260B	Total/NA
Xylenes, Total	2100		10	2.6	ug/L	10		8260B	Total/NA
Styrene	8.0	J	10	0.70	ug/L	10		8260B	Total/NA
Isopropylbenzene	22		10	1.8	ug/L	10		8260B	Total/NA
N-Propylbenzene	36		10	1.5	ug/L	10		8260B	Total/NA
1,3,5-Trimethylbenzene	110		10	1.0	ug/L	10		8260B	Total/NA
tert-Butylbenzene	47		10	0.80	ug/L	10		8260B	Total/NA
4-Isopropyltoluene	2.6	J	10	1.0	ug/L	10		8260B	Total/NA
1,2,4-Trimethylbenzene	330		10	1.4	ug/L	10		8260B	Total/NA
sec-Butylbenzene	2.2	J	10	1.2	ug/L	10		8260B	Total/NA
n-Butylbenzene	7.6	J	10	1.6	ug/L	10		8260B	Total/NA
Naphthalene	130		10	3.2	ug/L	10		8260B	Total/NA
Benzene - DL	14000		1000	80	ug/L	1000		8260B	Total/NA
Ethylbenzene - DL	510		100	11	ug/L	100		8260B	Total/NA
Phenol	73		15	0.39	ug/L	10		8270C LL	Total/NA
3 & 4 Methylphenol	5.9	J	9.9	2.0	ug/L	10		8270C LL	Total/NA
2,4-Dimethylphenol	34		25	3.1	ug/L	10		8270C LL	Total/NA
2-Methylnaphthalene	33		15	0.69	ug/L	10		8270C LL	Total/NA
C6-C12	12		2.0	0.82	mg/L	1		TX 1005	Total/NA
>C12-C28	3.9		2.0	0.94	mg/L	1		TX 1005	Total/NA
C6-C35	16		2.0	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.24		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.037	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.47		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0040	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0030	J B	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.63		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0094	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Selenium	0.0050	J	0.040	0.0042	mg/L	1		6010B	Total/NA
Vanadium	0.0032	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0048	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-12

Lab Sample ID: 600-54839-6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	23	J	50	8.0	ug/L	50		8260B	Total/NA
Chloroform	20	J	50	6.5	ug/L	50		8260B	Total/NA
Toluene	100		50	7.5	ug/L	50		8260B	Total/NA
Ethylbenzene	1700		50	5.5	ug/L	50		8260B	Total/NA
Xylenes, Total	8000		50	13	ug/L	50		8260B	Total/NA
Styrene	7.0	J	50	3.5	ug/L	50		8260B	Total/NA
Isopropylbenzene	76		50	9.0	ug/L	50		8260B	Total/NA
N-Propylbenzene	120		50	7.5	ug/L	50		8260B	Total/NA
1,3,5-Trimethylbenzene	400		50	5.0	ug/L	50		8260B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-12 (Continued)

Lab Sample ID: 600-54839-6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
4-Isopropyltoluene	9.3	J	50	5.0	ug/L	50		8260B	Total/NA
1,2,4-Trimethylbenzene	1200		50	7.0	ug/L	50		8260B	Total/NA
n-Butylbenzene	25	J	50	8.0	ug/L	50		8260B	Total/NA
Naphthalene	510		50	16	ug/L	50		8260B	Total/NA
Benzene - DL	26000		1000	80	ug/L	1000		8260B	Total/NA
Phenol	24		15	0.39	ug/L	10		8270C LL	Total/NA
3 & 4 Methylphenol	47		9.9	2.0	ug/L	10		8270C LL	Total/NA
2,4-Dimethylphenol	60		25	3.1	ug/L	10		8270C LL	Total/NA
2-Methylnaphthalene	76		15	0.69	ug/L	10		8270C LL	Total/NA
C6-C12	17		2.0	0.82	mg/L	1		TX 1005	Total/NA
C6-C35	17		2.0	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.21		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.057	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.62		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0037	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Manganese	0.89		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0052	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Lead	0.0038	J	0.010	0.0029	mg/L	1		6010B	Total/NA
Zinc	0.0046	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-3

Lab Sample ID: 600-54839-7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	81	J	200	32	ug/L	200		8260B	Total/NA
Chloroform	43	J	200	26	ug/L	200		8260B	Total/NA
Toluene	1400		200	30	ug/L	200		8260B	Total/NA
Ethylbenzene	1500		200	22	ug/L	200		8260B	Total/NA
Xylenes, Total	15000		200	52	ug/L	200		8260B	Total/NA
Styrene	83	J	200	14	ug/L	200		8260B	Total/NA
Isopropylbenzene	180	J	200	36	ug/L	200		8260B	Total/NA
N-Propylbenzene	260		200	30	ug/L	200		8260B	Total/NA
1,3,5-Trimethylbenzene	1500		200	20	ug/L	200		8260B	Total/NA
4-Isopropyltoluene	72	J	200	20	ug/L	200		8260B	Total/NA
1,2,4-Trimethylbenzene	2700		200	28	ug/L	200		8260B	Total/NA
sec-Butylbenzene	47	J	200	24	ug/L	200		8260B	Total/NA
n-Butylbenzene	190	J	200	32	ug/L	200		8260B	Total/NA
Naphthalene	820		200	64	ug/L	200		8260B	Total/NA
Benzene - DL	17000		2000	160	ug/L	2000		8260B	Total/NA
Phenol	18	J	74	2.0	ug/L	50		8270C LL	Total/NA
3 & 4 Methylphenol	35	J	49	9.9	ug/L	50		8270C LL	Total/NA
2-Methylnaphthalene	900		74	3.4	ug/L	50		8270C LL	Total/NA
C6-C12	280		9.7	4.0	mg/L	5		TX 1005	Total/NA
>C12-C28	160		9.7	4.7	mg/L	5		TX 1005	Total/NA
>C28-C35	21		9.7	4.7	mg/L	5		TX 1005	Total/NA
C6-C35	460		9.7	7.6	mg/L	5		TX 1005	Total/NA
Arsenic	0.095		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.066	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.44		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0025	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Chromium	0.0018	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Copper	0.0081	J B	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	1.0		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0047	J	0.010	0.0018	mg/L	1		6010B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-3 (Continued)

Lab Sample ID: 600-54839-7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Lead	0.033		0.010	0.0029	mg/L	1		6010B	Total/NA
Vanadium	0.0068	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0091	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-2

Lab Sample ID: 600-54839-8

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.9	J	5.0	0.60	ug/L	5		8260B	Total/NA
Methylene Chloride	0.95	J	25	0.75	ug/L	5		8260B	Total/NA
1,2-Dichloropropane	2.4	J	5.0	0.80	ug/L	5		8260B	Total/NA
Toluene	2.8	J	5.0	0.75	ug/L	5		8260B	Total/NA
Ethylbenzene	3.0	J	5.0	0.55	ug/L	5		8260B	Total/NA
Xylenes, Total	2.0	J	5.0	1.3	ug/L	5		8260B	Total/NA
Isopropylbenzene	29		5.0	0.90	ug/L	5		8260B	Total/NA
N-Propylbenzene	31		5.0	0.75	ug/L	5		8260B	Total/NA
tert-Butylbenzene	0.89	J	5.0	0.40	ug/L	5		8260B	Total/NA
4-Isopropyltoluene	2.3	J	5.0	0.50	ug/L	5		8260B	Total/NA
sec-Butylbenzene	3.4	J	5.0	0.60	ug/L	5		8260B	Total/NA
n-Butylbenzene	3.2	J	5.0	0.80	ug/L	5		8260B	Total/NA
Naphthalene	2.2	J	5.0	1.6	ug/L	5		8260B	Total/NA
Benzene - DL	390		50	4.0	ug/L	50		8260B	Total/NA
2-Methylnaphthalene	51		15	0.69	ug/L	10		8270C LL	Total/NA
Acenaphthene	1.5	J	9.9	0.79	ug/L	10		8270C LL	Total/NA
Fluorene	1.6	J	15	0.69	ug/L	10		8270C LL	Total/NA
Arsenic	0.38		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.077	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.18		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0010	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0015	J B	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.36		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0033	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Zinc	0.0048	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-4

Lab Sample ID: 600-54839-9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.41	J	5.0	0.40	ug/L	5		8260B	Total/NA
Fluorene	0.20	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Arsenic	0.0034	J	0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.051	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.23		0.020	0.0022	mg/L	1		6010B	Total/NA
Chromium	0.0022	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Copper	0.0049	J B	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.31		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0032	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Lead	0.0032	J	0.010	0.0029	mg/L	1		6010B	Total/NA
Vanadium	0.0088	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.012	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-20

Lab Sample ID: 600-54839-10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	3.1		1.0	0.12	ug/L	1		8260B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-20 (Continued)

Lab Sample ID: 600-54839-10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
2-Methylnaphthalene	0.20	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Di-n-butyl phthalate	0.11	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.31	J	2.5	0.12	ug/L	1		8270C LL	Total/NA
Aluminum	0.10	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.14		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.00070	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Manganese	0.083		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0061	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0044	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-9

Lab Sample ID: 600-54839-11

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	0.23	J	1.0	0.080	ug/L	1		8260B	Total/NA
Trichloroethene	1.2		1.0	0.18	ug/L	1		8260B	Total/NA
Chloroform	0.38	J	1.0	0.13	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.2		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	1.2		1.0	0.11	ug/L	1		8260B	Total/NA
Diethyl phthalate	1.5	J	2.5	1.5	ug/L	1		8270C LL	Total/NA
Di-n-butyl phthalate	0.29	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.28	J	2.5	0.12	ug/L	1		8270C LL	Total/NA
Bis(2-ethylhexyl) phthalate	0.42	J	2.5	0.36	ug/L	1		8270C LL	Total/NA
Aluminum	0.034	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.21		0.020	0.0022	mg/L	1		6010B	Total/NA
Chromium	0.0016	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Copper	0.0022	J B	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.024		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0092	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0031	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-21

Lab Sample ID: 600-54839-12

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.37	J	1.0	0.12	ug/L	1		8260B	Total/NA
cis-1,2-Dichloroethene	0.82	J	1.0	0.060	ug/L	1		8260B	Total/NA
Benzene	0.33	J	1.0	0.080	ug/L	1		8260B	Total/NA
1,2-Dichloroethane	0.72	J	1.0	0.14	ug/L	1		8260B	Total/NA
Trichloroethene	2.3		1.0	0.18	ug/L	1		8260B	Total/NA
Chloroform	0.17	J	1.0	0.13	ug/L	1		8260B	Total/NA
Bromodichloromethane	1.2		1.0	0.16	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.2		1.0	0.13	ug/L	1		8260B	Total/NA
Ethylbenzene	6.6		1.0	0.11	ug/L	1		8260B	Total/NA
Isopropylbenzene	1.9		1.0	0.18	ug/L	1		8260B	Total/NA
N-Propylbenzene	2.3		1.0	0.15	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.19	J	1.0	0.080	ug/L	1		8260B	Total/NA
sec-Butylbenzene	0.26	J	1.0	0.12	ug/L	1		8260B	Total/NA
n-Butylbenzene	0.37	J	1.0	0.16	ug/L	1		8260B	Total/NA
Naphthalene	3.3		1.0	0.32	ug/L	1		8260B	Total/NA
2-Methylnaphthalene	0.11	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Dibenzofuran	0.13	J	1.5	0.079	ug/L	1		8270C LL	Total/NA
Fluorene	0.31	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Phenanthrene	0.16	J	1.5	0.059	ug/L	1		8270C LL	Total/NA
Di-n-butyl phthalate	0.14	J	2.5	0.11	ug/L	1		8270C LL	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-21 (Continued)

Lab Sample ID: 600-54839-12

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Butyl benzyl phthalate	0.27	J	2.5	0.12	ug/L	1		8270C LL	Total/NA
Bis(2-ethylhexyl) phthalate	0.39	J	2.5	0.36	ug/L	1		8270C LL	Total/NA
Arsenic	0.019		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.14	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.11		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0025	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Manganese	0.29		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0022	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Vanadium	0.0093	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0037	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-22

Lab Sample ID: 600-54839-13

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.53	J	1.0	0.12	ug/L	1		8260B	Total/NA
Trichloroethene	1.2		1.0	0.18	ug/L	1		8260B	Total/NA
Tetrachloroethene	1.4		1.0	0.13	ug/L	1		8260B	Total/NA
Naphthalene	0.69	J	1.0	0.32	ug/L	1		8260B	Total/NA
Butyl benzyl phthalate	0.27	J	2.5	0.12	ug/L	1		8270C LL	Total/NA
Bis(2-ethylhexyl) phthalate	0.46	J	2.5	0.36	ug/L	1		8270C LL	Total/NA
Aluminum	0.041	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.18		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.00070	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Manganese	0.19		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0042	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0030	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-18

Lab Sample ID: 600-54839-14

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	4500		200	30	ug/L	200		8260B	Total/NA
Ethylbenzene	960		200	22	ug/L	200		8260B	Total/NA
Xylenes, Total	4100		200	52	ug/L	200		8260B	Total/NA
Styrene	19	J	200	14	ug/L	200		8260B	Total/NA
Isopropylbenzene	56	J	200	36	ug/L	200		8260B	Total/NA
N-Propylbenzene	52	J	200	30	ug/L	200		8260B	Total/NA
1,3,5-Trimethylbenzene	190	J	200	20	ug/L	200		8260B	Total/NA
1,2,4-Trimethylbenzene	480		200	28	ug/L	200		8260B	Total/NA
Naphthalene	160	J	200	64	ug/L	200		8260B	Total/NA
Benzene - DL	22000		5000	400	ug/L	5000		8260B	Total/NA
Phenol	31		15	0.39	ug/L	10		8270C LL	Total/NA
3 & 4 Methylphenol	110		9.9	2.0	ug/L	10		8270C LL	Total/NA
2-Methylnaphthalene	64		15	0.69	ug/L	10		8270C LL	Total/NA
2,4-Dimethylphenol - DL	660		120	15	ug/L	50		8270C LL	Total/NA
C6-C12	19		2.0	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	2.7		2.0	0.94	mg/L	1		TX 1005	Total/NA
C6-C35	22		2.0	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.15		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.041	J	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.40		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0029	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0024	J B	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.93		0.010	0.00084	mg/L	1		6010B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-18 (Continued)

Lab Sample ID: 600-54839-14

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Nickel	0.0047	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Lead	0.0033	J	0.010	0.0029	mg/L	1		6010B	Total/NA
Zinc	0.0034	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-16

Date Collected: 05/10/12 07:50

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/16/12 17:41	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 17:41	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 17:41	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 17:41	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/16/12 17:41	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 17:41	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/16/12 17:41	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 17:41	1
Methyl tert-butyl ether	0.74	J	1.0	0.12	ug/L			05/16/12 17:41	1
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 17:41	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/16/12 17:41	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 17:41	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/16/12 17:41	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 17:41	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 17:41	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/16/12 17:41	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 17:41	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 17:41	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 17:41	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 17:41	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 17:41	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 17:41	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 17:41	1
Chloroform	2.8		1.0	0.13	ug/L			05/16/12 17:41	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/16/12 17:41	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 17:41	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/16/12 17:41	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/16/12 17:41	1
Toluene	5.1		1.0	0.15	ug/L			05/16/12 17:41	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 17:41	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/16/12 17:41	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/16/12 17:41	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/16/12 17:41	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/16/12 17:41	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/16/12 17:41	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/16/12 17:41	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/16/12 17:41	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/16/12 17:41	1
Ethylbenzene	2.3		1.0	0.11	ug/L			05/16/12 17:41	1
Xylenes, Total	5.4		1.0	0.26	ug/L			05/16/12 17:41	1
Styrene	0.078	J	1.0	0.070	ug/L			05/16/12 17:41	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/16/12 17:41	1
Isopropylbenzene	22		1.0	0.18	ug/L			05/16/12 17:41	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/16/12 17:41	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/16/12 17:41	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/16/12 17:41	1
N-Propylbenzene	24		1.0	0.15	ug/L			05/16/12 17:41	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/16/12 17:41	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 17:41	1
1,3,5-Trimethylbenzene	1.1		1.0	0.10	ug/L			05/16/12 17:41	1
tert-Butylbenzene	0.42	J	1.0	0.080	ug/L			05/16/12 17:41	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-16

Lab Sample ID: 600-54839-1

Date Collected: 05/10/12 07:50

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	0.36	J	1.0	0.10	ug/L			05/16/12 17:41	1
1,2,4-Trimethylbenzene	2.1		1.0	0.14	ug/L			05/16/12 17:41	1
sec-Butylbenzene	1.5		1.0	0.12	ug/L			05/16/12 17:41	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 17:41	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 17:41	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 17:41	1
n-Butylbenzene	1.6		1.0	0.16	ug/L			05/16/12 17:41	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 17:41	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 17:41	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 17:41	1
Naphthalene	18		1.0	0.32	ug/L			05/16/12 17:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139		05/16/12 17:41	1
Dibromofluoromethane	93		62 - 130		05/16/12 17:41	1
Toluene-d8 (Surr)	86		70 - 130		05/16/12 17:41	1
1,2-Dichloroethane-d4 (Surr)	91		50 - 134		05/16/12 17:41	1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2100		100	8.0	ug/L			05/16/12 18:10	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		05/16/12 18:10	100
Dibromofluoromethane	78		62 - 130		05/16/12 18:10	100
Toluene-d8 (Surr)	84		70 - 130		05/16/12 18:10	100
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		05/16/12 18:10	100

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1
Phenol	0.040	U	1.5	0.040	ug/L		05/14/12 16:21	05/15/12 16:37	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 16:37	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/15/12 16:37	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/14/12 16:21	05/15/12 16:37	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/14/12 16:21	05/15/12 16:37	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 16:37	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/14/12 16:21	05/15/12 16:37	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/14/12 16:21	05/15/12 16:37	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 16:37	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 16:37	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/15/12 16:37	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/15/12 16:37	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/14/12 16:21	05/15/12 16:37	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/14/12 16:21	05/15/12 16:37	1
2-Methylnaphthalene	2.7		1.5	0.069	ug/L		05/14/12 16:21	05/15/12 16:37	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/15/12 16:37	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-16

Lab Sample ID: 600-54839-1

Date Collected: 05/10/12 07:50

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/14/12 16:21	05/15/12 16:37	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 16:37	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/15/12 16:37	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,4-Dinitrophenol	0.39	U	5.0	0.39	ug/L		05/14/12 16:21	05/15/12 16:37	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/14/12 16:21	05/15/12 16:37	1
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 16:37	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/14/12 16:21	05/15/12 16:37	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 16:37	1
Fluorene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 16:37	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/15/12 16:37	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/14/12 16:21	05/15/12 16:37	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 16:37	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 16:37	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/14/12 16:21	05/15/12 16:37	1
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/14/12 16:21	05/15/12 16:37	1
Anthracene	0.050	U	0.99	0.050	ug/L		05/14/12 16:21	05/15/12 16:37	1
Di-n-butyl phthalate	0.11	U	2.5	0.11	ug/L		05/14/12 16:21	05/15/12 16:37	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 16:37	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/14/12 16:21	05/15/12 16:37	1
Butyl benzyl phthalate	0.12	U	2.5	0.12	ug/L		05/14/12 16:21	05/15/12 16:37	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/14/12 16:21	05/15/12 16:37	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1
Bis(2-ethylhexyl) phthalate	0.37	U	2.5	0.37	ug/L		05/14/12 16:21	05/15/12 16:37	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/14/12 16:21	05/15/12 16:37	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 16:37	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/14/12 16:21	05/15/12 16:37	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 16:37	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 16:37	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	34		10 - 94	05/14/12 16:21	05/15/12 16:37	1
2,4,6-Tribromophenol	89		10 - 123	05/14/12 16:21	05/15/12 16:37	1
2-Fluorobiphenyl	89		43 - 116	05/14/12 16:21	05/15/12 16:37	1
2-Fluorophenol	38		10 - 100	05/14/12 16:21	05/15/12 16:37	1
Nitrobenzene-d5	91		35 - 114	05/14/12 16:21	05/15/12 16:37	1
Terphenyl-d14	63		33 - 141	05/14/12 16:21	05/15/12 16:37	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.9		1.9	0.81	mg/L		05/15/12 14:14	05/16/12 02:11	1
>C12-C28	4.9		1.9	0.93	mg/L		05/15/12 14:14	05/16/12 02:11	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 02:11	1
C6-C35	9.8		1.9	1.5	mg/L		05/15/12 14:14	05/16/12 02:11	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-16

Date Collected: 05/10/12 07:50

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-1

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	92		70 - 130	05/15/12 14:14	05/16/12 02:11	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.15		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:34	1
Aluminum	0.060	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:34	1
Barium	0.33		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:34	1
Cobalt	0.00090	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:34	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:34	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:34	1
Manganese	1.0		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:34	1
Nickel	0.0023	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:34	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:34	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:34	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:34	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:34	1
Zinc	0.0037	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:34	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 15:52	1

Client Sample ID: MW-14

Date Collected: 05/10/12 09:20

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-2

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	24	U *	200	24	ug/L			05/14/12 19:59	200
Chloromethane	36	U *	400	36	ug/L			05/14/12 19:59	200
Vinyl chloride	22	U	400	22	ug/L			05/14/12 19:59	200
Bromomethane	50	U	400	50	ug/L			05/14/12 19:59	200
Chloroethane	16	U	400	16	ug/L			05/14/12 19:59	200
Trichlorofluoromethane	16	U	200	16	ug/L			05/14/12 19:59	200
1,1-Dichloroethene	38	U	200	38	ug/L			05/14/12 19:59	200
trans-1,2-Dichloroethene	18	U	200	18	ug/L			05/14/12 19:59	200
Methyl tert-butyl ether	24	U	200	24	ug/L			05/14/12 19:59	200
Acetone	200	U	1000	200	ug/L			05/14/12 19:59	200
Iodomethane	400	U	400	400	ug/L			05/14/12 19:59	200
Carbon disulfide	48	U	400	48	ug/L			05/14/12 19:59	200
Methylene Chloride	30	U	1000	30	ug/L			05/14/12 19:59	200
cis-1,2-Dichloroethene	12	U	200	12	ug/L			05/14/12 19:59	200
2-Butanone (MEK)	150	U	400	150	ug/L			05/14/12 19:59	200
Carbon tetrachloride	30	U	200	30	ug/L			05/14/12 19:59	200
1,2-Dichloroethane	28	U	200	28	ug/L			05/14/12 19:59	200
Trichloroethene	36	U	200	36	ug/L			05/14/12 19:59	200
1,1,1-Trichloroethane	30	U	200	30	ug/L			05/14/12 19:59	200
1,1-Dichloroethane	22	U	200	22	ug/L			05/14/12 19:59	200
1,2-Dichloropropane	32	U	200	32	ug/L			05/14/12 19:59	200
2,2-Dichloropropane	26	U	200	26	ug/L			05/14/12 19:59	200
Dibromomethane	100	U	200	100	ug/L			05/14/12 19:59	200
Chloroform	26	U	200	26	ug/L			05/14/12 19:59	200

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-14

Lab Sample ID: 600-54839-2

Date Collected: 05/10/12 09:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	32	U	200	32	ug/L			05/14/12 19:59	200
1,1-Dichloropropene	42	U	200	42	ug/L			05/14/12 19:59	200
cis-1,3-Dichloropropene	36	U	200	36	ug/L			05/14/12 19:59	200
4-Methyl-2-pentanone (MIBK)	90	U	400	90	ug/L			05/14/12 19:59	200
trans-1,3-Dichloropropene	42	U	200	42	ug/L			05/14/12 19:59	200
1,1,2-Trichloroethane	56	U	200	56	ug/L			05/14/12 19:59	200
Tetrachloroethene	26	U	200	26	ug/L			05/14/12 19:59	200
1,3-Dichloropropane	44	U	200	44	ug/L			05/14/12 19:59	200
2-Hexanone	70	U	400	70	ug/L			05/14/12 19:59	200
Dibromochloromethane	30	U	200	30	ug/L			05/14/12 19:59	200
1,2-Dibromoethane	36	U	200	36	ug/L			05/14/12 19:59	200
Chlorobenzene	24	U	200	24	ug/L			05/14/12 19:59	200
1,1,1,2-Tetrachloroethane	36	U	200	36	ug/L			05/14/12 19:59	200
Ethylbenzene	1400		200	22	ug/L			05/14/12 19:59	200
Xylenes, Total	13000		200	52	ug/L			05/14/12 19:59	200
Styrene	100	J	200	14	ug/L			05/14/12 19:59	200
Bromoform	38	U	200	38	ug/L			05/14/12 19:59	200
Isopropylbenzene	81	J	200	36	ug/L			05/14/12 19:59	200
Bromobenzene	38	U	200	38	ug/L			05/14/12 19:59	200
1,2,3-Trichloropropane	58	U	200	58	ug/L			05/14/12 19:59	200
1,1,2,2-Tetrachloroethane	44	U	200	44	ug/L			05/14/12 19:59	200
N-Propylbenzene	110	J	200	30	ug/L			05/14/12 19:59	200
2-Chlorotoluene	26	U	200	26	ug/L			05/14/12 19:59	200
4-Chlorotoluene	28	U	200	28	ug/L			05/14/12 19:59	200
1,3,5-Trimethylbenzene	440		200	20	ug/L			05/14/12 19:59	200
tert-Butylbenzene	16	U	200	16	ug/L			05/14/12 19:59	200
4-Isopropyltoluene	20	U	200	20	ug/L			05/14/12 19:59	200
1,2,4-Trimethylbenzene	1100		200	28	ug/L			05/14/12 19:59	200
sec-Butylbenzene	24	U	200	24	ug/L			05/14/12 19:59	200
1,3-Dichlorobenzene	26	U	200	26	ug/L			05/14/12 19:59	200
1,4-Dichlorobenzene	22	U	200	22	ug/L			05/14/12 19:59	200
1,2-Dichlorobenzene	20	U	200	20	ug/L			05/14/12 19:59	200
n-Butylbenzene	32	U	200	32	ug/L			05/14/12 19:59	200
1,2-Dibromo-3-Chloropropane	160	U *	200	160	ug/L			05/14/12 19:59	200
1,2,4-Trichlorobenzene	62	U	200	62	ug/L			05/14/12 19:59	200
Hexachlorobutadiene	34	U	200	34	ug/L			05/14/12 19:59	200
Naphthalene	350		200	64	ug/L			05/14/12 19:59	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		05/14/12 19:59	200
Dibromofluoromethane	78		62 - 130		05/14/12 19:59	200
Toluene-d8 (Surr)	90		70 - 130		05/14/12 19:59	200
1,2-Dichloroethane-d4 (Surr)	77		50 - 134		05/14/12 19:59	200

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	31000		1000	80	ug/L			05/15/12 18:53	1000
Toluene	28000		1000	150	ug/L			05/15/12 18:53	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		05/15/12 18:53	1000
Dibromofluoromethane	79		62 - 130		05/15/12 18:53	1000

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-14

Lab Sample ID: 600-54839-2

Date Collected: 05/10/12 09:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	87		70 - 130		05/15/12 18:53	1000
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		05/15/12 18:53	1000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	4.0	U	74	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Phenol	24	J	74	2.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Bis(2-chloroethyl)ether	7.4	U	74	7.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
2-Chlorophenol	6.4	U	99	6.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzyl alcohol	8.4	U	270	8.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Bis(2-chloroisopropyl) ether	20	U	74	20	ug/L		05/14/12 16:21	05/22/12 14:25	50
3 & 4 Methylphenol	86		50	9.9	ug/L		05/14/12 16:21	05/22/12 14:25	50
N-Nitrosodi-n-propylamine	5.0	U	120	5.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Hexachloroethane	5.0	U	99	5.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Nitrobenzene	5.4	U	74	5.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Isophorone	5.4	U	74	5.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
2-Nitrophenol	11	U	50	11	ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4-Dimethylphenol	640		120	15	ug/L		05/14/12 16:21	05/22/12 14:25	50
Bis(2-chloroethoxy)methane	6.4	U	74	6.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4-Dichlorophenol	7.4	U	120	7.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Chloroaniline	10	U	50	10	ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Chloro-3-methylphenol	8.4	U	50	8.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
2-Methylnaphthalene	58	J	74	3.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
Hexachlorocyclopentadiene	6.4	U	74	6.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4,6-Trichlorophenol	8.9	U	99	8.9	ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4,5-Trichlorophenol	12	U	99	12	ug/L		05/14/12 16:21	05/22/12 14:25	50
2-Chloronaphthalene	4.0	U	74	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
2-Nitroaniline	9.4	U	120	9.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Dimethyl phthalate	3.5	U	120	3.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
Acenaphthylene	3.0	U	50	3.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
2,6-Dinitrotoluene	4.0	U	50	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
3-Nitroaniline	7.9	U	120	7.9	ug/L		05/14/12 16:21	05/22/12 14:25	50
Acenaphthene	4.0	U	50	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4-Dinitrophenol	19	U	250	19	ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Nitrophenol	28	U	120	28	ug/L		05/14/12 16:21	05/22/12 14:25	50
Dibenzofuran	4.0	U	74	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
2,4-Dinitrotoluene	6.4	U	74	6.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Diethyl phthalate	74	U	120	74	ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Chlorophenyl phenyl ether	5.0	U	74	5.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Fluorene	3.5	U	74	3.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Nitroaniline	12	U	120	12	ug/L		05/14/12 16:21	05/22/12 14:25	50
4,6-Dinitro-2-methylphenol	41	U	120	41	ug/L		05/14/12 16:21	05/22/12 14:25	50
4-Bromophenyl phenyl ether	5.0	U	74	5.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Hexachlorobenzene	5.4	U	74	5.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Pentachlorophenol	30	U	120	30	ug/L		05/14/12 16:21	05/22/12 14:25	50
Phenanthrene	3.0	U	74	3.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Anthracene	2.5	U	50	2.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
Di-n-butyl phthalate	5.4	U	120	5.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Fluoranthene	3.5	U	120	3.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
Pyrene	5.4	U	99	5.4	ug/L		05/14/12 16:21	05/22/12 14:25	50
Butyl benzyl phthalate	5.9	U	120	5.9	ug/L		05/14/12 16:21	05/22/12 14:25	50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-14

Lab Sample ID: 600-54839-2

Date Collected: 05/10/12 09:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	8.9	U	500	8.9	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzo[a]anthracene	4.0	U	99	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Bis(2-ethylhexyl) phthalate	18	U	120	18	ug/L		05/14/12 16:21	05/22/12 14:25	50
Chrysene	4.0	U	74	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Di-n-octyl phthalate	7.9	U	250	7.9	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzo[b]fluoranthene	3.5	U	99	3.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzo[k]fluoranthene	4.5	U	99	4.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzo[a]pyrene	4.0	U	74	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Indeno[1,2,3-cd]pyrene	3.5	U	99	3.5	ug/L		05/14/12 16:21	05/22/12 14:25	50
Dibenz(a,h)anthracene	4.0	U	120	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50
Benzo[g,h,i]perylene	4.0	U	120	4.0	ug/L		05/14/12 16:21	05/22/12 14:25	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	05/14/12 16:21	05/22/12 14:25	50
2,4,6-Tribromophenol	0	X	10 - 123	05/14/12 16:21	05/22/12 14:25	50
2-Fluorobiphenyl	0	X	43 - 116	05/14/12 16:21	05/22/12 14:25	50
2-Fluorophenol	0	X	10 - 100	05/14/12 16:21	05/22/12 14:25	50
Nitrobenzene-d5	0	X	35 - 114	05/14/12 16:21	05/22/12 14:25	50
Terphenyl-d14	0	X	33 - 141	05/14/12 16:21	05/22/12 14:25	50

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	40		1.9	0.81	mg/L		05/15/12 14:14	05/16/12 02:45	1
>C12-C28	1.1	J	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 02:45	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 02:45	1
C6-C35	41		1.9	1.5	mg/L		05/15/12 14:14	05/16/12 02:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	74		70 - 130	05/15/12 14:14	05/16/12 02:45	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.33		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:37	1
Aluminum	0.070	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:37	1
Barium	0.44		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:37	1
Cobalt	0.0078	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:37	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:37	1
Copper	0.0017	J B	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:37	1
Manganese	1.0		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:37	1
Nickel	0.0061	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:37	1
Lead	0.0077	J	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:37	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:37	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:37	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:37	1
Zinc	0.0052	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:37	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 15:54	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-19

Lab Sample ID: 600-54839-3

Date Collected: 05/10/12 11:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	6.0	U *	50	6.0	ug/L			05/14/12 18:05	50
Chloromethane	9.0	U *	100	9.0	ug/L			05/14/12 18:05	50
Vinyl chloride	5.5	U	100	5.5	ug/L			05/14/12 18:05	50
Bromomethane	13	U	100	13	ug/L			05/14/12 18:05	50
Chloroethane	4.0	U	100	4.0	ug/L			05/14/12 18:05	50
Trichlorofluoromethane	4.0	U	50	4.0	ug/L			05/14/12 18:05	50
1,1-Dichloroethene	9.5	U	50	9.5	ug/L			05/14/12 18:05	50
trans-1,2-Dichloroethene	4.5	U	50	4.5	ug/L			05/14/12 18:05	50
Methyl tert-butyl ether	130		50	6.0	ug/L			05/14/12 18:05	50
Acetone	50	U	250	50	ug/L			05/14/12 18:05	50
Iodomethane	100	U	100	100	ug/L			05/14/12 18:05	50
Carbon disulfide	12	U	100	12	ug/L			05/14/12 18:05	50
Methylene Chloride	7.5	U	250	7.5	ug/L			05/14/12 18:05	50
cis-1,2-Dichloroethene	3.0	U	50	3.0	ug/L			05/14/12 18:05	50
2-Butanone (MEK)	38	U	100	38	ug/L			05/14/12 18:05	50
Carbon tetrachloride	7.5	U	50	7.5	ug/L			05/14/12 18:05	50
1,2-Dichloroethane	7.0	U	50	7.0	ug/L			05/14/12 18:05	50
Trichloroethene	9.0	U	50	9.0	ug/L			05/14/12 18:05	50
1,1,1-Trichloroethane	7.5	U	50	7.5	ug/L			05/14/12 18:05	50
1,1-Dichloroethane	5.5	U	50	5.5	ug/L			05/14/12 18:05	50
1,2-Dichloropropane	8.0	U	50	8.0	ug/L			05/14/12 18:05	50
2,2-Dichloropropane	6.5	U	50	6.5	ug/L			05/14/12 18:05	50
Dibromomethane	26	U	50	26	ug/L			05/14/12 18:05	50
Chloroform	13 J		50	6.5	ug/L			05/14/12 18:05	50
Bromodichloromethane	8.0	U	50	8.0	ug/L			05/14/12 18:05	50
1,1-Dichloropropene	11	U	50	11	ug/L			05/14/12 18:05	50
cis-1,3-Dichloropropene	9.0	U	50	9.0	ug/L			05/14/12 18:05	50
4-Methyl-2-pentanone (MIBK)	23	U	100	23	ug/L			05/14/12 18:05	50
Toluene	26 J		50	7.5	ug/L			05/14/12 18:05	50
trans-1,3-Dichloropropene	11	U	50	11	ug/L			05/14/12 18:05	50
1,1,2-Trichloroethane	14	U	50	14	ug/L			05/14/12 18:05	50
Tetrachloroethene	6.5	U	50	6.5	ug/L			05/14/12 18:05	50
1,3-Dichloropropane	11	U	50	11	ug/L			05/14/12 18:05	50
2-Hexanone	18	U	100	18	ug/L			05/14/12 18:05	50
Dibromochloromethane	7.5	U	50	7.5	ug/L			05/14/12 18:05	50
1,2-Dibromoethane	9.0	U	50	9.0	ug/L			05/14/12 18:05	50
Chlorobenzene	6.0	U	50	6.0	ug/L			05/14/12 18:05	50
1,1,1,2-Tetrachloroethane	9.0	U	50	9.0	ug/L			05/14/12 18:05	50
Ethylbenzene	510		50	5.5	ug/L			05/14/12 18:05	50
Xylenes, Total	680		50	13	ug/L			05/14/12 18:05	50
Styrene	3.5	U	50	3.5	ug/L			05/14/12 18:05	50
Bromoform	9.5	U	50	9.5	ug/L			05/14/12 18:05	50
Isopropylbenzene	30 J		50	9.0	ug/L			05/14/12 18:05	50
Bromobenzene	9.5	U	50	9.5	ug/L			05/14/12 18:05	50
1,2,3-Trichloropropane	15	U	50	15	ug/L			05/14/12 18:05	50
1,1,2,2-Tetrachloroethane	11	U	50	11	ug/L			05/14/12 18:05	50
N-Propylbenzene	48 J		50	7.5	ug/L			05/14/12 18:05	50
2-Chlorotoluene	6.5	U	50	6.5	ug/L			05/14/12 18:05	50
4-Chlorotoluene	7.0	U	50	7.0	ug/L			05/14/12 18:05	50
1,3,5-Trimethylbenzene	86		50	5.0	ug/L			05/14/12 18:05	50
tert-Butylbenzene	4.0	U	50	4.0	ug/L			05/14/12 18:05	50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-19

Lab Sample ID: 600-54839-3

Date Collected: 05/10/12 11:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	5.0	U	50	5.0	ug/L			05/14/12 18:05	50
1,2,4-Trimethylbenzene	300		50	7.0	ug/L			05/14/12 18:05	50
sec-Butylbenzene	6.0	U	50	6.0	ug/L			05/14/12 18:05	50
1,3-Dichlorobenzene	6.5	U	50	6.5	ug/L			05/14/12 18:05	50
1,4-Dichlorobenzene	5.5	U	50	5.5	ug/L			05/14/12 18:05	50
1,2-Dichlorobenzene	5.0	U	50	5.0	ug/L			05/14/12 18:05	50
n-Butylbenzene	8.0	U	50	8.0	ug/L			05/14/12 18:05	50
1,2-Dibromo-3-Chloropropane	41	U *	50	41	ug/L			05/14/12 18:05	50
1,2,4-Trichlorobenzene	16	U	50	16	ug/L			05/14/12 18:05	50
Hexachlorobutadiene	8.5	U	50	8.5	ug/L			05/14/12 18:05	50
Naphthalene	180		50	16	ug/L			05/14/12 18:05	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		05/14/12 18:05	50
Dibromofluoromethane	81		62 - 130		05/14/12 18:05	50
Toluene-d8 (Surr)	86		70 - 130		05/14/12 18:05	50
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		05/14/12 18:05	50

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	4400		500	40	ug/L			05/15/12 14:08	500

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	93		67 - 139		05/15/12 14:08	500
Dibromofluoromethane	81		62 - 130		05/15/12 14:08	500
Toluene-d8 (Surr)	86		70 - 130		05/15/12 14:08	500
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		05/15/12 14:08	500

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10
Phenol	3.9	J	15	0.40	ug/L		05/14/12 16:21	05/18/12 01:09	10
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 01:09	10
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 01:09	10
Benzyl alcohol	1.7	U	55	1.7	ug/L		05/14/12 16:21	05/18/12 01:09	10
Bis(2-chloroisopropyl) ether	4.0	U	15	4.0	ug/L		05/14/12 16:21	05/18/12 01:09	10
3 & 4 Methylphenol	2.1	J	10	2.0	ug/L		05/14/12 16:21	05/18/12 01:09	10
N-Nitrosodi-n-propylamine	1.0	U	25	1.0	ug/L		05/14/12 16:21	05/18/12 01:09	10
Hexachloroethane	1.0	U	20	1.0	ug/L		05/14/12 16:21	05/18/12 01:09	10
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
2-Nitrophenol	2.2	U	10	2.2	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,4-Dimethylphenol	3.1	U	25	3.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,4-Dichlorophenol	1.5	U	25	1.5	ug/L		05/14/12 16:21	05/18/12 01:09	10
4-Chloroaniline	2.1	U	10	2.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
4-Chloro-3-methylphenol	1.7	U	10	1.7	ug/L		05/14/12 16:21	05/18/12 01:09	10
2-Methylnaphthalene	43		15	0.70	ug/L		05/14/12 16:21	05/18/12 01:09	10
Hexachlorocyclopentadiene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,4,6-Trichlorophenol	1.8	U	20	1.8	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,4,5-Trichlorophenol	2.5	U	20	2.5	ug/L		05/14/12 16:21	05/18/12 01:09	10
2-Chloronaphthalene	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-19

Lab Sample ID: 600-54839-3

Date Collected: 05/10/12 11:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	1.9	U	25	1.9	ug/L		05/14/12 16:21	05/18/12 01:09	10
Dimethyl phthalate	0.70	U	25	0.70	ug/L		05/14/12 16:21	05/18/12 01:09	10
Acenaphthylene	0.60	U	10	0.60	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,6-Dinitrotoluene	0.80	U	10	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10
3-Nitroaniline	1.6	U	25	1.6	ug/L		05/14/12 16:21	05/18/12 01:09	10
Acenaphthene	0.80	U	10	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,4-Dinitrophenol	3.9	U	50	3.9	ug/L		05/14/12 16:21	05/18/12 01:09	10
4-Nitrophenol	5.6	U	25	5.6	ug/L		05/14/12 16:21	05/18/12 01:09	10
Dibenzofuran	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10
2,4-Dinitrotoluene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:09	10
Diethyl phthalate	15	U	25	15	ug/L		05/14/12 16:21	05/18/12 01:09	10
4-Chlorophenyl phenyl ether	1.0	U	15	1.0	ug/L		05/14/12 16:21	05/18/12 01:09	10
Fluorene	0.70	U	15	0.70	ug/L		05/14/12 16:21	05/18/12 01:09	10
4-Nitroaniline	2.5	U	25	2.5	ug/L		05/14/12 16:21	05/18/12 01:09	10
4,6-Dinitro-2-methylphenol	8.3	U	25	8.3	ug/L		05/14/12 16:21	05/18/12 01:09	10
4-Bromophenyl phenyl ether	1.0	U	15	1.0	ug/L		05/14/12 16:21	05/18/12 01:09	10
Hexachlorobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
Pentachlorophenol	6.1	U	25	6.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
Phenanthrene	0.60	U	15	0.60	ug/L		05/14/12 16:21	05/18/12 01:09	10
Anthracene	0.50	U	10	0.50	ug/L		05/14/12 16:21	05/18/12 01:09	10
Di-n-butyl phthalate	1.1	U	25	1.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
Fluoranthene	0.70	U	25	0.70	ug/L		05/14/12 16:21	05/18/12 01:09	10
Pyrene	1.1	U	20	1.1	ug/L		05/14/12 16:21	05/18/12 01:09	10
Butyl benzyl phthalate	1.2	U	25	1.2	ug/L		05/14/12 16:21	05/18/12 01:09	10
3,3'-Dichlorobenzidine	1.8	U	100	1.8	ug/L		05/14/12 16:21	05/18/12 01:09	10
Benzo[a]anthracene	0.80	U	20	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10
Bis(2-ethylhexyl) phthalate	3.7	U	25	3.7	ug/L		05/14/12 16:21	05/18/12 01:09	10
Chrysene	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10
Di-n-octyl phthalate	1.6	U	50	1.6	ug/L		05/14/12 16:21	05/18/12 01:09	10
Benzo[b]fluoranthene	0.70	U	20	0.70	ug/L		05/14/12 16:21	05/18/12 01:09	10
Benzo[k]fluoranthene	0.90	U	20	0.90	ug/L		05/14/12 16:21	05/18/12 01:09	10
Benzo[a]pyrene	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10
Indeno[1,2,3-cd]pyrene	0.70	U	20	0.70	ug/L		05/14/12 16:21	05/18/12 01:09	10
Dibenz(a,h)anthracene	0.80	U	25	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10
Benzo[g,h,i]perylene	0.80	U	25	0.80	ug/L		05/14/12 16:21	05/18/12 01:09	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	24		10 - 94	05/14/12 16:21	05/18/12 01:09	10
2,4,6-Tribromophenol	80		10 - 123	05/14/12 16:21	05/18/12 01:09	10
2-Fluorobiphenyl	74		43 - 116	05/14/12 16:21	05/18/12 01:09	10
2-Fluorophenol	34		10 - 100	05/14/12 16:21	05/18/12 01:09	10
Nitrobenzene-d5	69		35 - 114	05/14/12 16:21	05/18/12 01:09	10
Terphenyl-d14	69		33 - 141	05/14/12 16:21	05/18/12 01:09	10

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	4.4		1.9	0.81	mg/L		05/15/12 14:14	05/16/12 03:20	1
>C12-C28	2.4		1.9	0.93	mg/L		05/15/12 14:14	05/16/12 03:20	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 03:20	1
C6-C35	6.8		1.9	1.5	mg/L		05/15/12 14:14	05/16/12 03:20	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-19

Date Collected: 05/10/12 11:30

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-3

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	92		70 - 130	05/15/12 14:14	05/16/12 03:20	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.034		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:39	1
Aluminum	0.043	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:39	1
Barium	0.16		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:39	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:39	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:39	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:39	1
Manganese	0.66		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:39	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:39	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:39	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:39	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:39	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:39	1
Zinc	0.0090	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:39	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 15:56	1

Client Sample ID: MW-17

Date Collected: 05/10/12 12:40

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-4

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	6.0	U *	50	6.0	ug/L			05/14/12 18:33	50
Chloromethane	9.0	U *	100	9.0	ug/L			05/14/12 18:33	50
Vinyl chloride	5.5	U	100	5.5	ug/L			05/14/12 18:33	50
Bromomethane	13	U	100	13	ug/L			05/14/12 18:33	50
Chloroethane	4.0	U	100	4.0	ug/L			05/14/12 18:33	50
Trichlorofluoromethane	4.0	U	50	4.0	ug/L			05/14/12 18:33	50
1,1-Dichloroethene	9.5	U	50	9.5	ug/L			05/14/12 18:33	50
trans-1,2-Dichloroethene	4.5	U	50	4.5	ug/L			05/14/12 18:33	50
Methyl tert-butyl ether	6.0	U	50	6.0	ug/L			05/14/12 18:33	50
Acetone	50	U	250	50	ug/L			05/14/12 18:33	50
Iodomethane	100	U	100	100	ug/L			05/14/12 18:33	50
Carbon disulfide	12	U	100	12	ug/L			05/14/12 18:33	50
Methylene Chloride	7.5	U	250	7.5	ug/L			05/14/12 18:33	50
cis-1,2-Dichloroethene	3.0	U	50	3.0	ug/L			05/14/12 18:33	50
2-Butanone (MEK)	38	U	100	38	ug/L			05/14/12 18:33	50
Carbon tetrachloride	7.5	U	50	7.5	ug/L			05/14/12 18:33	50
1,2-Dichloroethane	7.0	U	50	7.0	ug/L			05/14/12 18:33	50
Trichloroethene	9.0	U	50	9.0	ug/L			05/14/12 18:33	50
1,1,1-Trichloroethane	7.5	U	50	7.5	ug/L			05/14/12 18:33	50
1,1-Dichloroethane	5.5	U	50	5.5	ug/L			05/14/12 18:33	50
1,2-Dichloropropane	8.0	U	50	8.0	ug/L			05/14/12 18:33	50
2,2-Dichloropropane	6.5	U	50	6.5	ug/L			05/14/12 18:33	50
Dibromomethane	26	U	50	26	ug/L			05/14/12 18:33	50
Chloroform	17	J	50	6.5	ug/L			05/14/12 18:33	50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-17

Lab Sample ID: 600-54839-4

Date Collected: 05/10/12 12:40

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromodichloromethane	8.0	U	50	8.0	ug/L			05/14/12 18:33	50
1,1-Dichloropropene	11	U	50	11	ug/L			05/14/12 18:33	50
cis-1,3-Dichloropropene	9.0	U	50	9.0	ug/L			05/14/12 18:33	50
4-Methyl-2-pentanone (MIBK)	23	U	100	23	ug/L			05/14/12 18:33	50
Toluene	9.9	J	50	7.5	ug/L			05/14/12 18:33	50
trans-1,3-Dichloropropene	11	U	50	11	ug/L			05/14/12 18:33	50
1,1,2-Trichloroethane	14	U	50	14	ug/L			05/14/12 18:33	50
Tetrachloroethene	6.5	U	50	6.5	ug/L			05/14/12 18:33	50
1,3-Dichloropropane	11	U	50	11	ug/L			05/14/12 18:33	50
2-Hexanone	18	U	100	18	ug/L			05/14/12 18:33	50
Dibromochloromethane	7.5	U	50	7.5	ug/L			05/14/12 18:33	50
1,2-Dibromoethane	9.0	U	50	9.0	ug/L			05/14/12 18:33	50
Chlorobenzene	6.0	U	50	6.0	ug/L			05/14/12 18:33	50
1,1,1,2-Tetrachloroethane	9.0	U	50	9.0	ug/L			05/14/12 18:33	50
Ethylbenzene	340		50	5.5	ug/L			05/14/12 18:33	50
Xylenes, Total	360		50	13	ug/L			05/14/12 18:33	50
Styrene	3.5	U	50	3.5	ug/L			05/14/12 18:33	50
Bromoform	9.5	U	50	9.5	ug/L			05/14/12 18:33	50
Isopropylbenzene	22	J	50	9.0	ug/L			05/14/12 18:33	50
Bromobenzene	9.5	U	50	9.5	ug/L			05/14/12 18:33	50
1,2,3-Trichloropropane	15	U	50	15	ug/L			05/14/12 18:33	50
1,1,2,2-Tetrachloroethane	11	U	50	11	ug/L			05/14/12 18:33	50
N-Propylbenzene	41	J	50	7.5	ug/L			05/14/12 18:33	50
2-Chlorotoluene	6.5	U	50	6.5	ug/L			05/14/12 18:33	50
4-Chlorotoluene	7.0	U	50	7.0	ug/L			05/14/12 18:33	50
1,3,5-Trimethylbenzene	98		50	5.0	ug/L			05/14/12 18:33	50
tert-Butylbenzene	4.0	U	50	4.0	ug/L			05/14/12 18:33	50
4-Isopropyltoluene	5.0	U	50	5.0	ug/L			05/14/12 18:33	50
1,2,4-Trimethylbenzene	290		50	7.0	ug/L			05/14/12 18:33	50
sec-Butylbenzene	6.0	U	50	6.0	ug/L			05/14/12 18:33	50
1,3-Dichlorobenzene	6.5	U	50	6.5	ug/L			05/14/12 18:33	50
1,4-Dichlorobenzene	5.5	U	50	5.5	ug/L			05/14/12 18:33	50
1,2-Dichlorobenzene	5.0	U	50	5.0	ug/L			05/14/12 18:33	50
n-Butylbenzene	8.0	U	50	8.0	ug/L			05/14/12 18:33	50
1,2-Dibromo-3-Chloropropane	41	U *	50	41	ug/L			05/14/12 18:33	50
1,2,4-Trichlorobenzene	16	U	50	16	ug/L			05/14/12 18:33	50
Hexachlorobutadiene	8.5	U	50	8.5	ug/L			05/14/12 18:33	50
Naphthalene	150		50	16	ug/L			05/14/12 18:33	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 139		05/14/12 18:33	50
Dibromofluoromethane	79		62 - 130		05/14/12 18:33	50
Toluene-d8 (Surr)	87		70 - 130		05/14/12 18:33	50
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		05/14/12 18:33	50

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	2500		200	16	ug/L			05/15/12 16:29	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		05/15/12 16:29	200
Dibromofluoromethane	81		62 - 130		05/15/12 16:29	200

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-17

Lab Sample ID: 600-54839-4

Date Collected: 05/10/12 12:40

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	86		70 - 130		05/15/12 16:29	200
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		05/15/12 16:29	200

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
Phenol	2.5	J	15	0.40	ug/L		05/14/12 16:21	05/18/12 01:35	10
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 01:35	10
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzyl alcohol	1.7	U	55	1.7	ug/L		05/14/12 16:21	05/18/12 01:35	10
Bis(2-chloroisopropyl) ether	4.0	U	15	4.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
3 & 4 Methylphenol	2.0	U	10	2.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
N-Nitrosodi-n-propylamine	1.0	U	25	1.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
Hexachloroethane	1.0	U	20	1.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
2-Nitrophenol	2.2	U	10	2.2	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4-Dimethylphenol	3.1	U	25	3.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4-Dichlorophenol	1.5	U	25	1.5	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Chloroaniline	2.1	U	10	2.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Chloro-3-methylphenol	1.7	U	10	1.7	ug/L		05/14/12 16:21	05/18/12 01:35	10
2-Methylnaphthalene	22		15	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
Hexachlorocyclopentadiene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4,6-Trichlorophenol	1.8	U	20	1.8	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4,5-Trichlorophenol	2.5	U	20	2.5	ug/L		05/14/12 16:21	05/18/12 01:35	10
2-Chloronaphthalene	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
2-Nitroaniline	1.9	U	25	1.9	ug/L		05/14/12 16:21	05/18/12 01:35	10
Dimethyl phthalate	0.70	U	25	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
Acenaphthylene	0.60	U	10	0.60	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,6-Dinitrotoluene	0.80	U	10	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
3-Nitroaniline	1.6	U	25	1.6	ug/L		05/14/12 16:21	05/18/12 01:35	10
Acenaphthene	0.80	U	10	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4-Dinitrophenol	3.9	U	50	3.9	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Nitrophenol	5.6	U	25	5.6	ug/L		05/14/12 16:21	05/18/12 01:35	10
Dibenzofuran	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
2,4-Dinitrotoluene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 01:35	10
Diethyl phthalate	15	U	25	15	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Chlorophenyl phenyl ether	1.0	U	15	1.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
Fluorene	0.70	U	15	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Nitroaniline	2.5	U	25	2.5	ug/L		05/14/12 16:21	05/18/12 01:35	10
4,6-Dinitro-2-methylphenol	8.3	U	25	8.3	ug/L		05/14/12 16:21	05/18/12 01:35	10
4-Bromophenyl phenyl ether	1.0	U	15	1.0	ug/L		05/14/12 16:21	05/18/12 01:35	10
Hexachlorobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Pentachlorophenol	6.1	U	25	6.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Phenanthrene	0.60	U	15	0.60	ug/L		05/14/12 16:21	05/18/12 01:35	10
Anthracene	0.50	U	10	0.50	ug/L		05/14/12 16:21	05/18/12 01:35	10
Di-n-butyl phthalate	1.1	U	25	1.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Fluoranthene	0.70	U	25	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
Pyrene	1.1	U	20	1.1	ug/L		05/14/12 16:21	05/18/12 01:35	10
Butyl benzyl phthalate	1.2	U	25	1.2	ug/L		05/14/12 16:21	05/18/12 01:35	10

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-17

Lab Sample ID: 600-54839-4

Date Collected: 05/10/12 12:40

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
3,3'-Dichlorobenzidine	1.8	U	100	1.8	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzo[a]anthracene	0.80	U	20	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
Bis(2-ethylhexyl) phthalate	3.7	U	25	3.7	ug/L		05/14/12 16:21	05/18/12 01:35	10
Chrysene	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
Di-n-octyl phthalate	1.6	U	50	1.6	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzo[b]fluoranthene	0.70	U	20	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzo[k]fluoranthene	0.90	U	20	0.90	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzo[a]pyrene	0.80	U	15	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
Indeno[1,2,3-cd]pyrene	0.70	U	20	0.70	ug/L		05/14/12 16:21	05/18/12 01:35	10
Dibenz(a,h)anthracene	0.80	U	25	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10
Benzo[g,h,i]perylene	0.80	U	25	0.80	ug/L		05/14/12 16:21	05/18/12 01:35	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	9	X	10 - 94	05/14/12 16:21	05/18/12 01:35	10
2,4,6-Tribromophenol	72		10 - 123	05/14/12 16:21	05/18/12 01:35	10
2-Fluorobiphenyl	92		43 - 116	05/14/12 16:21	05/18/12 01:35	10
2-Fluorophenol	43		10 - 100	05/14/12 16:21	05/18/12 01:35	10
Nitrobenzene-d5	71		35 - 114	05/14/12 16:21	05/18/12 01:35	10
Terphenyl-d14	82		33 - 141	05/14/12 16:21	05/18/12 01:35	10

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	2.7		2.0	0.81	mg/L		05/15/12 14:14	05/16/12 04:30	1
>C12-C28	3.1		2.0	0.94	mg/L		05/15/12 14:14	05/16/12 04:30	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 04:30	1
C6-C35	5.8		2.0	1.5	mg/L		05/15/12 14:14	05/16/12 04:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	89		70 - 130	05/15/12 14:14	05/16/12 04:30	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.026		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:42	1
Aluminum	0.059	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:42	1
Barium	0.12		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:42	1
Cobalt	0.0013	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:42	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:42	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:42	1
Manganese	0.50		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:42	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:42	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:42	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:42	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:42	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:42	1
Zinc	0.0028	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 15:58	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-15

Lab Sample ID: 600-54839-5

Date Collected: 05/10/12 14:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	1.2	U *	10	1.2	ug/L			05/15/12 19:21	10
Chloromethane	1.8	U	20	1.8	ug/L			05/15/12 19:21	10
Vinyl chloride	1.1	U	20	1.1	ug/L			05/15/12 19:21	10
Bromomethane	2.5	U	20	2.5	ug/L			05/15/12 19:21	10
Chloroethane	0.80	U	20	0.80	ug/L			05/15/12 19:21	10
Trichlorofluoromethane	0.80	U	10	0.80	ug/L			05/15/12 19:21	10
1,1-Dichloroethene	1.9	U	10	1.9	ug/L			05/15/12 19:21	10
trans-1,2-Dichloroethene	0.90	U	10	0.90	ug/L			05/15/12 19:21	10
Methyl tert-butyl ether	66		10	1.2	ug/L			05/15/12 19:21	10
Acetone	9.9	U	50	9.9	ug/L			05/15/12 19:21	10
Iodomethane	20	U	20	20	ug/L			05/15/12 19:21	10
Carbon disulfide	2.4	U	20	2.4	ug/L			05/15/12 19:21	10
Methylene Chloride	1.5	U	50	1.5	ug/L			05/15/12 19:21	10
cis-1,2-Dichloroethene	0.60	U	10	0.60	ug/L			05/15/12 19:21	10
2-Butanone (MEK)	7.6	U	20	7.6	ug/L			05/15/12 19:21	10
Carbon tetrachloride	1.5	U	10	1.5	ug/L			05/15/12 19:21	10
1,2-Dichloroethane	1.4	U	10	1.4	ug/L			05/15/12 19:21	10
Trichloroethene	1.8	U	10	1.8	ug/L			05/15/12 19:21	10
1,1,1-Trichloroethane	1.5	U	10	1.5	ug/L			05/15/12 19:21	10
1,1-Dichloroethane	1.1	U	10	1.1	ug/L			05/15/12 19:21	10
1,2-Dichloropropane	6.4 J		10	1.6	ug/L			05/15/12 19:21	10
2,2-Dichloropropane	1.3	U	10	1.3	ug/L			05/15/12 19:21	10
Dibromomethane	5.2	U	10	5.2	ug/L			05/15/12 19:21	10
Chloroform	7.5 J		10	1.3	ug/L			05/15/12 19:21	10
Bromodichloromethane	1.6	U	10	1.6	ug/L			05/15/12 19:21	10
1,1-Dichloropropene	2.1	U	10	2.1	ug/L			05/15/12 19:21	10
cis-1,3-Dichloropropene	1.8	U	10	1.8	ug/L			05/15/12 19:21	10
4-Methyl-2-pentanone (MIBK)	4.5	U	20	4.5	ug/L			05/15/12 19:21	10
Toluene	66		10	1.5	ug/L			05/15/12 19:21	10
trans-1,3-Dichloropropene	2.1	U	10	2.1	ug/L			05/15/12 19:21	10
1,1,2-Trichloroethane	2.8	U	10	2.8	ug/L			05/15/12 19:21	10
Tetrachloroethene	1.3	U	10	1.3	ug/L			05/15/12 19:21	10
1,3-Dichloropropane	2.2	U	10	2.2	ug/L			05/15/12 19:21	10
2-Hexanone	3.5	U	20	3.5	ug/L			05/15/12 19:21	10
Dibromochloromethane	1.5	U	10	1.5	ug/L			05/15/12 19:21	10
1,2-Dibromoethane	1.8	U	10	1.8	ug/L			05/15/12 19:21	10
Chlorobenzene	1.2	U	10	1.2	ug/L			05/15/12 19:21	10
1,1,1,2-Tetrachloroethane	1.8	U	10	1.8	ug/L			05/15/12 19:21	10
Xylenes, Total	2100		10	2.6	ug/L			05/15/12 19:21	10
Styrene	8.0 J		10	0.70	ug/L			05/15/12 19:21	10
Bromoform	1.9	U	10	1.9	ug/L			05/15/12 19:21	10
Isopropylbenzene	22		10	1.8	ug/L			05/15/12 19:21	10
Bromobenzene	1.9	U	10	1.9	ug/L			05/15/12 19:21	10
1,2,3-Trichloropropane	2.9	U	10	2.9	ug/L			05/15/12 19:21	10
1,1,2,2-Tetrachloroethane	2.2	U	10	2.2	ug/L			05/15/12 19:21	10
N-Propylbenzene	36		10	1.5	ug/L			05/15/12 19:21	10
2-Chlorotoluene	1.3	U	10	1.3	ug/L			05/15/12 19:21	10
4-Chlorotoluene	1.4	U	10	1.4	ug/L			05/15/12 19:21	10
1,3,5-Trimethylbenzene	110		10	1.0	ug/L			05/15/12 19:21	10
tert-Butylbenzene	47		10	0.80	ug/L			05/15/12 19:21	10
4-Isopropyltoluene	2.6 J		10	1.0	ug/L			05/15/12 19:21	10

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-15

Lab Sample ID: 600-54839-5

Date Collected: 05/10/12 14:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	330		10	1.4	ug/L			05/15/12 19:21	10
sec-Butylbenzene	2.2	J	10	1.2	ug/L			05/15/12 19:21	10
1,3-Dichlorobenzene	1.3	U	10	1.3	ug/L			05/15/12 19:21	10
1,4-Dichlorobenzene	1.1	U	10	1.1	ug/L			05/15/12 19:21	10
1,2-Dichlorobenzene	1.0	U	10	1.0	ug/L			05/15/12 19:21	10
n-Butylbenzene	7.6	J	10	1.6	ug/L			05/15/12 19:21	10
1,2-Dibromo-3-Chloropropane	8.1	U	10	8.1	ug/L			05/15/12 19:21	10
1,2,4-Trichlorobenzene	3.1	U	10	3.1	ug/L			05/15/12 19:21	10
Hexachlorobutadiene	1.7	U	10	1.7	ug/L			05/15/12 19:21	10
Naphthalene	130		10	3.2	ug/L			05/15/12 19:21	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		05/15/12 19:21	10
Dibromofluoromethane	78		62 - 130		05/15/12 19:21	10
Toluene-d8 (Surr)	87		70 - 130		05/15/12 19:21	10
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		05/15/12 19:21	10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	14000		1000	80	ug/L			05/16/12 19:35	1000
Ethylbenzene	510		100	11	ug/L			05/15/12 19:50	100

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		05/15/12 19:50	100
4-Bromofluorobenzene	100		67 - 139		05/16/12 19:35	1000
Dibromofluoromethane	75		62 - 130		05/15/12 19:50	100
Dibromofluoromethane	78		62 - 130		05/16/12 19:35	1000
Toluene-d8 (Surr)	87		70 - 130		05/15/12 19:50	100
Toluene-d8 (Surr)	85		70 - 130		05/16/12 19:35	1000
1,2-Dichloroethane-d4 (Surr)	76		50 - 134		05/15/12 19:50	100
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		05/16/12 19:35	1000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Phenol	73		15	0.39	ug/L		05/14/12 16:21	05/18/12 02:01	10
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 02:01	10
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzyl alcohol	1.7	U	54	1.7	ug/L		05/14/12 16:21	05/18/12 02:01	10
Bis(2-chloroisopropyl) ether	3.9	U	15	3.9	ug/L		05/14/12 16:21	05/18/12 02:01	10
3 & 4 Methylphenol	5.9	J	9.9	2.0	ug/L		05/14/12 16:21	05/18/12 02:01	10
N-Nitrosodi-n-propylamine	0.99	U	25	0.99	ug/L		05/14/12 16:21	05/18/12 02:01	10
Hexachloroethane	0.99	U	20	0.99	ug/L		05/14/12 16:21	05/18/12 02:01	10
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
2-Nitrophenol	2.2	U	9.9	2.2	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4-Dimethylphenol	34		25	3.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4-Dichlorophenol	1.5	U	25	1.5	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Chloroaniline	2.1	U	9.9	2.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Chloro-3-methylphenol	1.7	U	9.9	1.7	ug/L		05/14/12 16:21	05/18/12 02:01	10
2-Methylnaphthalene	33		15	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-15

Lab Sample ID: 600-54839-5

Date Collected: 05/10/12 14:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4,6-Trichlorophenol	1.8	U	20	1.8	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4,5-Trichlorophenol	2.5	U	20	2.5	ug/L		05/14/12 16:21	05/18/12 02:01	10
2-Chloronaphthalene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
2-Nitroaniline	1.9	U	25	1.9	ug/L		05/14/12 16:21	05/18/12 02:01	10
Dimethyl phthalate	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10
Acenaphthylene	0.59	U	9.9	0.59	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,6-Dinitrotoluene	0.79	U	9.9	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
3-Nitroaniline	1.6	U	25	1.6	ug/L		05/14/12 16:21	05/18/12 02:01	10
Acenaphthene	0.79	U	9.9	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4-Dinitrophenol	3.8	U	49	3.8	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Nitrophenol	5.5	U	25	5.5	ug/L		05/14/12 16:21	05/18/12 02:01	10
Dibenzofuran	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
2,4-Dinitrotoluene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 02:01	10
Diethyl phthalate	15	U	25	15	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Chlorophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 02:01	10
Fluorene	0.69	U	15	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Nitroaniline	2.5	U	25	2.5	ug/L		05/14/12 16:21	05/18/12 02:01	10
4,6-Dinitro-2-methylphenol	8.2	U	25	8.2	ug/L		05/14/12 16:21	05/18/12 02:01	10
4-Bromophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 02:01	10
Hexachlorobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
Pentachlorophenol	6.0	U	25	6.0	ug/L		05/14/12 16:21	05/18/12 02:01	10
Phenanthrene	0.59	U	15	0.59	ug/L		05/14/12 16:21	05/18/12 02:01	10
Anthracene	0.49	U	9.9	0.49	ug/L		05/14/12 16:21	05/18/12 02:01	10
Di-n-butyl phthalate	1.1	U	25	1.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
Fluoranthene	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10
Pyrene	1.1	U	20	1.1	ug/L		05/14/12 16:21	05/18/12 02:01	10
Butyl benzyl phthalate	1.2	U	25	1.2	ug/L		05/14/12 16:21	05/18/12 02:01	10
3,3'-Dichlorobenzidine	1.8	U	99	1.8	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzo[a]anthracene	0.79	U	20	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Bis(2-ethylhexyl) phthalate	3.6	U	25	3.6	ug/L		05/14/12 16:21	05/18/12 02:01	10
Chrysene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Di-n-octyl phthalate	1.6	U	49	1.6	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzo[b]fluoranthene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzo[k]fluoranthene	0.89	U	20	0.89	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzo[a]pyrene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Indeno[1,2,3-cd]pyrene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 02:01	10
Dibenz(a,h)anthracene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10
Benzo[g,h,i]perylene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 02:01	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	35		10 - 94	05/14/12 16:21	05/18/12 02:01	10
2,4,6-Tribromophenol	111		10 - 123	05/14/12 16:21	05/18/12 02:01	10
2-Fluorobiphenyl	96		43 - 116	05/14/12 16:21	05/18/12 02:01	10
2-Fluorophenol	48		10 - 100	05/14/12 16:21	05/18/12 02:01	10
Nitrobenzene-d5	100		35 - 114	05/14/12 16:21	05/18/12 02:01	10
Terphenyl-d14	97		33 - 141	05/14/12 16:21	05/18/12 02:01	10

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	12		2.0	0.82	mg/L		05/15/12 14:14	05/16/12 05:05	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-15

Lab Sample ID: 600-54839-5

Date Collected: 05/10/12 14:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
>C12-C28	3.9		2.0	0.94	mg/L		05/15/12 14:14	05/16/12 05:05	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 05:05	1
C6-C35	16		2.0	1.5	mg/L		05/15/12 14:14	05/16/12 05:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	102		70 - 130				05/15/12 14:14	05/16/12 05:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.24		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:51	1
Aluminum	0.037	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:51	1
Barium	0.47		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:51	1
Cobalt	0.0040	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:51	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:51	1
Copper	0.0030	J B	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:51	1
Manganese	0.63		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:51	1
Nickel	0.0094	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:51	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:51	1
Selenium	0.0050	J	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:51	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:51	1
Vanadium	0.0032	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:00	1
Zinc	0.0048	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:51	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:00	1

Client Sample ID: MW-12

Lab Sample ID: 600-54839-6

Date Collected: 05/10/12 15:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	6.0	U *	50	6.0	ug/L			05/14/12 19:02	50
Chloromethane	9.0	U *	100	9.0	ug/L			05/14/12 19:02	50
Vinyl chloride	5.5	U	100	5.5	ug/L			05/14/12 19:02	50
Bromomethane	13	U	100	13	ug/L			05/14/12 19:02	50
Chloroethane	4.0	U	100	4.0	ug/L			05/14/12 19:02	50
Trichlorofluoromethane	4.0	U	50	4.0	ug/L			05/14/12 19:02	50
1,1-Dichloroethene	9.5	U	50	9.5	ug/L			05/14/12 19:02	50
trans-1,2-Dichloroethene	4.5	U	50	4.5	ug/L			05/14/12 19:02	50
Methyl tert-butyl ether	6.0	U	50	6.0	ug/L			05/14/12 19:02	50
Acetone	50	U	250	50	ug/L			05/14/12 19:02	50
Iodomethane	100	U	100	100	ug/L			05/14/12 19:02	50
Carbon disulfide	12	U	100	12	ug/L			05/14/12 19:02	50
Methylene Chloride	7.5	U	250	7.5	ug/L			05/14/12 19:02	50
cis-1,2-Dichloroethene	3.0	U	50	3.0	ug/L			05/14/12 19:02	50
2-Butanone (MEK)	38	U	100	38	ug/L			05/14/12 19:02	50
Carbon tetrachloride	7.5	U	50	7.5	ug/L			05/14/12 19:02	50
1,2-Dichloroethane	7.0	U	50	7.0	ug/L			05/14/12 19:02	50
Trichloroethene	9.0	U	50	9.0	ug/L			05/14/12 19:02	50
1,1,1-Trichloroethane	7.5	U	50	7.5	ug/L			05/14/12 19:02	50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-12

Lab Sample ID: 600-54839-6

Date Collected: 05/10/12 15:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	5.5	U	50	5.5	ug/L			05/14/12 19:02	50
1,2-Dichloropropane	23	J	50	8.0	ug/L			05/14/12 19:02	50
2,2-Dichloropropane	6.5	U	50	6.5	ug/L			05/14/12 19:02	50
Dibromomethane	26	U	50	26	ug/L			05/14/12 19:02	50
Chloroform	20	J	50	6.5	ug/L			05/14/12 19:02	50
Bromodichloromethane	8.0	U	50	8.0	ug/L			05/14/12 19:02	50
1,1-Dichloropropene	11	U	50	11	ug/L			05/14/12 19:02	50
cis-1,3-Dichloropropene	9.0	U	50	9.0	ug/L			05/14/12 19:02	50
4-Methyl-2-pentanone (MIBK)	23	U	100	23	ug/L			05/14/12 19:02	50
Toluene	100		50	7.5	ug/L			05/14/12 19:02	50
trans-1,3-Dichloropropene	11	U	50	11	ug/L			05/14/12 19:02	50
1,1,2-Trichloroethane	14	U	50	14	ug/L			05/14/12 19:02	50
Tetrachloroethene	6.5	U	50	6.5	ug/L			05/14/12 19:02	50
1,3-Dichloropropane	11	U	50	11	ug/L			05/14/12 19:02	50
2-Hexanone	18	U	100	18	ug/L			05/14/12 19:02	50
Dibromochloromethane	7.5	U	50	7.5	ug/L			05/14/12 19:02	50
1,2-Dibromoethane	9.0	U	50	9.0	ug/L			05/14/12 19:02	50
Chlorobenzene	6.0	U	50	6.0	ug/L			05/14/12 19:02	50
1,1,1,2-Tetrachloroethane	9.0	U	50	9.0	ug/L			05/14/12 19:02	50
Ethylbenzene	1700		50	5.5	ug/L			05/14/12 19:02	50
Xylenes, Total	8000		50	13	ug/L			05/14/12 19:02	50
Styrene	7.0	J	50	3.5	ug/L			05/14/12 19:02	50
Bromoform	9.5	U	50	9.5	ug/L			05/14/12 19:02	50
Isopropylbenzene	76		50	9.0	ug/L			05/14/12 19:02	50
Bromobenzene	9.5	U	50	9.5	ug/L			05/14/12 19:02	50
1,2,3-Trichloropropane	15	U	50	15	ug/L			05/14/12 19:02	50
1,1,2,2-Tetrachloroethane	11	U	50	11	ug/L			05/14/12 19:02	50
N-Propylbenzene	120		50	7.5	ug/L			05/14/12 19:02	50
2-Chlorotoluene	6.5	U	50	6.5	ug/L			05/14/12 19:02	50
4-Chlorotoluene	7.0	U	50	7.0	ug/L			05/14/12 19:02	50
1,3,5-Trimethylbenzene	400		50	5.0	ug/L			05/14/12 19:02	50
tert-Butylbenzene	4.0	U	50	4.0	ug/L			05/14/12 19:02	50
4-Isopropyltoluene	9.3	J	50	5.0	ug/L			05/14/12 19:02	50
1,2,4-Trimethylbenzene	1200		50	7.0	ug/L			05/14/12 19:02	50
sec-Butylbenzene	6.0	U	50	6.0	ug/L			05/14/12 19:02	50
1,3-Dichlorobenzene	6.5	U	50	6.5	ug/L			05/14/12 19:02	50
1,4-Dichlorobenzene	5.5	U	50	5.5	ug/L			05/14/12 19:02	50
1,2-Dichlorobenzene	5.0	U	50	5.0	ug/L			05/14/12 19:02	50
n-Butylbenzene	25	J	50	8.0	ug/L			05/14/12 19:02	50
1,2-Dibromo-3-Chloropropane	41	U *	50	41	ug/L			05/14/12 19:02	50
1,2,4-Trichlorobenzene	16	U	50	16	ug/L			05/14/12 19:02	50
Hexachlorobutadiene	8.5	U	50	8.5	ug/L			05/14/12 19:02	50
Naphthalene	510		50	16	ug/L			05/14/12 19:02	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 139					05/14/12 19:02	50
Dibromofluoromethane	81		62 - 130					05/14/12 19:02	50
Toluene-d8 (Surr)	87		70 - 130					05/14/12 19:02	50
1,2-Dichloroethane-d4 (Surr)	80		50 - 134					05/14/12 19:02	50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-12

Lab Sample ID: 600-54839-6

Date Collected: 05/10/12 15:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	26000		1000	80	ug/L			05/15/12 16:58	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		67 - 139		05/15/12 16:58	1000
Dibromofluoromethane	82		62 - 130		05/15/12 16:58	1000
Toluene-d8 (Surr)	85		70 - 130		05/15/12 16:58	1000
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		05/15/12 16:58	1000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
Phenol	24		15	0.39	ug/L		05/14/12 16:21	05/18/12 02:27	10
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 02:27	10
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzyl alcohol	1.7	U	54	1.7	ug/L		05/14/12 16:21	05/18/12 02:27	10
Bis(2-chloroisopropyl) ether	3.9	U	15	3.9	ug/L		05/14/12 16:21	05/18/12 02:27	10
3 & 4 Methylphenol	47		9.9	2.0	ug/L		05/14/12 16:21	05/18/12 02:27	10
N-Nitrosodi-n-propylamine	0.99	U	25	0.99	ug/L		05/14/12 16:21	05/18/12 02:27	10
Hexachloroethane	0.99	U	20	0.99	ug/L		05/14/12 16:21	05/18/12 02:27	10
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:27	10
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:27	10
2-Nitrophenol	2.2	U	9.9	2.2	ug/L		05/14/12 16:21	05/18/12 02:27	10
2,4-Dimethylphenol	60		25	3.1	ug/L		05/14/12 16:21	05/18/12 02:27	10
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 02:27	10
2,4-Dichlorophenol	1.5	U	25	1.5	ug/L		05/14/12 16:21	05/18/12 02:27	10
4-Chloroaniline	2.1	U	9.9	2.1	ug/L		05/14/12 16:21	05/18/12 02:27	10
4-Chloro-3-methylphenol	1.7	U	9.9	1.7	ug/L		05/14/12 16:21	05/18/12 02:27	10
2-Methylnaphthalene	76		15	0.69	ug/L		05/14/12 16:21	05/18/12 02:27	10
Hexachlorocyclopentadiene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 02:27	10
2,4,6-Trichlorophenol	1.8	U	20	1.8	ug/L		05/14/12 16:21	05/18/12 02:27	10
2,4,5-Trichlorophenol	2.5	U	20	2.5	ug/L		05/14/12 16:21	05/18/12 02:27	10
2-Chloronaphthalene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
2-Nitroaniline	1.9	U	25	1.9	ug/L		05/14/12 16:21	05/18/12 02:27	10
Dimethyl phthalate	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 02:27	10
Acenaphthylene	0.59	U	9.9	0.59	ug/L		05/14/12 16:21	05/18/12 02:27	10
2,6-Dinitrotoluene	0.79	U	9.9	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
3-Nitroaniline	1.6	U	25	1.6	ug/L		05/14/12 16:21	05/18/12 02:27	10
Acenaphthene	0.79	U	9.9	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
2,4-Dinitrophenol	3.8	U	49	3.8	ug/L		05/14/12 16:21	05/18/12 02:27	10
4-Nitrophenol	5.5	U	25	5.5	ug/L		05/14/12 16:21	05/18/12 02:27	10
Dibenzofuran	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
2,4-Dinitrotoluene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 02:27	10
Diethyl phthalate	15	U	25	15	ug/L		05/14/12 16:21	05/18/12 02:27	10
4-Chlorophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 02:27	10
Fluorene	0.69	U	15	0.69	ug/L		05/14/12 16:21	05/18/12 02:27	10
4-Nitroaniline	2.5	U	25	2.5	ug/L		05/14/12 16:21	05/18/12 02:27	10
4,6-Dinitro-2-methylphenol	8.2	U	25	8.2	ug/L		05/14/12 16:21	05/18/12 02:27	10
4-Bromophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 02:27	10
Hexachlorobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 02:27	10
Pentachlorophenol	6.0	U	25	6.0	ug/L		05/14/12 16:21	05/18/12 02:27	10
Phenanthrene	0.59	U	15	0.59	ug/L		05/14/12 16:21	05/18/12 02:27	10

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-12

Lab Sample ID: 600-54839-6

Date Collected: 05/10/12 15:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.49	U	9.9	0.49	ug/L		05/14/12 16:21	05/18/12 02:27	10
Di-n-butyl phthalate	1.1	U	25	1.1	ug/L		05/14/12 16:21	05/18/12 02:27	10
Fluoranthene	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 02:27	10
Pyrene	1.1	U	20	1.1	ug/L		05/14/12 16:21	05/18/12 02:27	10
Butyl benzyl phthalate	1.2	U	25	1.2	ug/L		05/14/12 16:21	05/18/12 02:27	10
3,3'-Dichlorobenzidine	1.8	U	99	1.8	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzo[a]anthracene	0.79	U	20	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
Bis(2-ethylhexyl) phthalate	3.6	U	25	3.6	ug/L		05/14/12 16:21	05/18/12 02:27	10
Chrysene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
Di-n-octyl phthalate	1.6	U	49	1.6	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzo[b]fluoranthene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzo[k]fluoranthene	0.89	U	20	0.89	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzo[a]pyrene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
Indeno[1,2,3-cd]pyrene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 02:27	10
Dibenz(a,h)anthracene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10
Benzo[g,h,i]perylene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 02:27	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	23		10 - 94	05/14/12 16:21	05/18/12 02:27	10
2,4,6-Tribromophenol	41		10 - 123	05/14/12 16:21	05/18/12 02:27	10
2-Fluorobiphenyl	67		43 - 116	05/14/12 16:21	05/18/12 02:27	10
2-Fluorophenol	36		10 - 100	05/14/12 16:21	05/18/12 02:27	10
Nitrobenzene-d5	91		35 - 114	05/14/12 16:21	05/18/12 02:27	10
Terphenyl-d14	62		33 - 141	05/14/12 16:21	05/18/12 02:27	10

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	17		2.0	0.82	mg/L		05/15/12 14:14	05/16/12 05:39	1
>C12-C28	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 05:39	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 05:39	1
C6-C35	17		2.0	1.5	mg/L		05/15/12 14:14	05/16/12 05:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	90		70 - 130	05/15/12 14:14	05/16/12 05:39	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.21		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:53	1
Aluminum	0.057	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:53	1
Barium	0.62		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:53	1
Cobalt	0.0037	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:53	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:53	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:53	1
Manganese	0.89		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:53	1
Nickel	0.0052	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:53	1
Lead	0.0038	J	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:53	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:53	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:53	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:53	1
Zinc	0.0046	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:53	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-12

Date Collected: 05/10/12 15:20

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-6

Matrix: Water

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:02	1

Client Sample ID: MW-3

Date Collected: 05/10/12 16:20

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-7

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	24	U *	200	24	ug/L			05/14/12 20:56	200
Chloromethane	36	U *	400	36	ug/L			05/14/12 20:56	200
Vinyl chloride	22	U	400	22	ug/L			05/14/12 20:56	200
Bromomethane	50	U	400	50	ug/L			05/14/12 20:56	200
Chloroethane	16	U	400	16	ug/L			05/14/12 20:56	200
Trichlorofluoromethane	16	U	200	16	ug/L			05/14/12 20:56	200
1,1-Dichloroethene	38	U	200	38	ug/L			05/14/12 20:56	200
trans-1,2-Dichloroethene	18	U	200	18	ug/L			05/14/12 20:56	200
Methyl tert-butyl ether	24	U	200	24	ug/L			05/14/12 20:56	200
Acetone	200	U	1000	200	ug/L			05/14/12 20:56	200
Iodomethane	400	U	400	400	ug/L			05/14/12 20:56	200
Carbon disulfide	48	U	400	48	ug/L			05/14/12 20:56	200
Methylene Chloride	30	U	1000	30	ug/L			05/14/12 20:56	200
cis-1,2-Dichloroethene	12	U	200	12	ug/L			05/14/12 20:56	200
2-Butanone (MEK)	150	U	400	150	ug/L			05/14/12 20:56	200
Carbon tetrachloride	30	U	200	30	ug/L			05/14/12 20:56	200
1,2-Dichloroethane	28	U	200	28	ug/L			05/14/12 20:56	200
Trichloroethene	36	U	200	36	ug/L			05/14/12 20:56	200
1,1,1-Trichloroethane	30	U	200	30	ug/L			05/14/12 20:56	200
1,1-Dichloroethane	22	U	200	22	ug/L			05/14/12 20:56	200
1,2-Dichloropropane	81	J	200	32	ug/L			05/14/12 20:56	200
2,2-Dichloropropane	26	U	200	26	ug/L			05/14/12 20:56	200
Dibromomethane	100	U	200	100	ug/L			05/14/12 20:56	200
Chloroform	43	J	200	26	ug/L			05/14/12 20:56	200
Bromodichloromethane	32	U	200	32	ug/L			05/14/12 20:56	200
1,1-Dichloropropene	42	U	200	42	ug/L			05/14/12 20:56	200
cis-1,3-Dichloropropene	36	U	200	36	ug/L			05/14/12 20:56	200
4-Methyl-2-pentanone (MIBK)	90	U	400	90	ug/L			05/14/12 20:56	200
Toluene	1400		200	30	ug/L			05/14/12 20:56	200
trans-1,3-Dichloropropene	42	U	200	42	ug/L			05/14/12 20:56	200
1,1,2-Trichloroethane	56	U	200	56	ug/L			05/14/12 20:56	200
Tetrachloroethene	26	U	200	26	ug/L			05/14/12 20:56	200
1,3-Dichloropropane	44	U	200	44	ug/L			05/14/12 20:56	200
2-Hexanone	70	U	400	70	ug/L			05/14/12 20:56	200
Dibromochloromethane	30	U	200	30	ug/L			05/14/12 20:56	200
1,2-Dibromoethane	36	U	200	36	ug/L			05/14/12 20:56	200
Chlorobenzene	24	U	200	24	ug/L			05/14/12 20:56	200
1,1,1,2-Tetrachloroethane	36	U	200	36	ug/L			05/14/12 20:56	200
Ethylbenzene	1500		200	22	ug/L			05/14/12 20:56	200
Xylenes, Total	15000		200	52	ug/L			05/14/12 20:56	200
Styrene	83	J	200	14	ug/L			05/14/12 20:56	200
Bromoform	38	U	200	38	ug/L			05/14/12 20:56	200
Isopropylbenzene	180	J	200	36	ug/L			05/14/12 20:56	200

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-3

Lab Sample ID: 600-54839-7

Date Collected: 05/10/12 16:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromobenzene	38	U	200	38	ug/L			05/14/12 20:56	200
1,2,3-Trichloropropane	58	U	200	58	ug/L			05/14/12 20:56	200
1,1,2,2-Tetrachloroethane	44	U	200	44	ug/L			05/14/12 20:56	200
N-Propylbenzene	260		200	30	ug/L			05/14/12 20:56	200
2-Chlorotoluene	26	U	200	26	ug/L			05/14/12 20:56	200
4-Chlorotoluene	28	U	200	28	ug/L			05/14/12 20:56	200
1,3,5-Trimethylbenzene	1500		200	20	ug/L			05/14/12 20:56	200
tert-Butylbenzene	16	U	200	16	ug/L			05/14/12 20:56	200
4-Isopropyltoluene	72	J	200	20	ug/L			05/14/12 20:56	200
1,2,4-Trimethylbenzene	2700		200	28	ug/L			05/14/12 20:56	200
sec-Butylbenzene	47	J	200	24	ug/L			05/14/12 20:56	200
1,3-Dichlorobenzene	26	U	200	26	ug/L			05/14/12 20:56	200
1,4-Dichlorobenzene	22	U	200	22	ug/L			05/14/12 20:56	200
1,2-Dichlorobenzene	20	U	200	20	ug/L			05/14/12 20:56	200
n-Butylbenzene	190	J	200	32	ug/L			05/14/12 20:56	200
1,2-Dibromo-3-Chloropropane	160	U *	200	160	ug/L			05/14/12 20:56	200
1,2,4-Trichlorobenzene	62	U	200	62	ug/L			05/14/12 20:56	200
Hexachlorobutadiene	34	U	200	34	ug/L			05/14/12 20:56	200
Naphthalene	820		200	64	ug/L			05/14/12 20:56	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		05/14/12 20:56	200
Dibromofluoromethane	78		62 - 130		05/14/12 20:56	200
Toluene-d8 (Surr)	89		70 - 130		05/14/12 20:56	200
1,2-Dichloroethane-d4 (Surr)	76		50 - 134		05/14/12 20:56	200

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	17000		2000	160	ug/L			05/15/12 20:19	2000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		05/15/12 20:19	2000
Dibromofluoromethane	81		62 - 130		05/15/12 20:19	2000
Toluene-d8 (Surr)	87		70 - 130		05/15/12 20:19	2000
1,2-Dichloroethane-d4 (Surr)	76		50 - 134		05/15/12 20:19	2000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	3.9	U	74	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Phenol	18	J	74	2.0	ug/L		05/14/12 16:21	05/18/12 02:54	50
Bis(2-chloroethyl)ether	7.4	U	74	7.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
2-Chlorophenol	6.4	U	99	6.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Benzyl alcohol	8.4	U	270	8.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Bis(2-chloroisopropyl) ether	20	U	74	20	ug/L		05/14/12 16:21	05/18/12 02:54	50
3 & 4 Methylphenol	35	J	49	9.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
N-Nitrosodi-n-propylamine	4.9	U	120	4.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Hexachloroethane	4.9	U	99	4.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Nitrobenzene	5.4	U	74	5.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Isophorone	5.4	U	74	5.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
2-Nitrophenol	11	U	49	11	ug/L		05/14/12 16:21	05/18/12 02:54	50
2,4-Dimethylphenol	15	U	120	15	ug/L		05/14/12 16:21	05/18/12 02:54	50
Bis(2-chloroethoxy)methane	6.4	U	74	6.4	ug/L		05/14/12 16:21	05/18/12 02:54	50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-3

Lab Sample ID: 600-54839-7

Date Collected: 05/10/12 16:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	7.4	U	120	7.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
4-Chloroaniline	10	U	49	10	ug/L		05/14/12 16:21	05/18/12 02:54	50
4-Chloro-3-methylphenol	8.4	U	49	8.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
2-Methylnaphthalene	900		74	3.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Hexachlorocyclopentadiene	6.4	U	74	6.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
2,4,6-Trichlorophenol	8.9	U	99	8.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
2,4,5-Trichlorophenol	12	U	99	12	ug/L		05/14/12 16:21	05/18/12 02:54	50
2-Chloronaphthalene	3.9	U	74	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
2-Nitroaniline	9.4	U	120	9.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Dimethyl phthalate	3.4	U	120	3.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Acenaphthylene	3.0	U	49	3.0	ug/L		05/14/12 16:21	05/18/12 02:54	50
2,6-Dinitrotoluene	3.9	U	49	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
3-Nitroaniline	7.9	U	120	7.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Acenaphthene	3.9	U	49	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
2,4-Dinitrophenol	19	U	250	19	ug/L		05/14/12 16:21	05/18/12 02:54	50
4-Nitrophenol	28	U	120	28	ug/L		05/14/12 16:21	05/18/12 02:54	50
Dibenzofuran	3.9	U	74	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
2,4-Dinitrotoluene	6.4	U	74	6.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Diethyl phthalate	74	U	120	74	ug/L		05/14/12 16:21	05/18/12 02:54	50
4-Chlorophenyl phenyl ether	4.9	U	74	4.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Fluorene	3.4	U	74	3.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
4-Nitroaniline	12	U	120	12	ug/L		05/14/12 16:21	05/18/12 02:54	50
4,6-Dinitro-2-methylphenol	41	U	120	41	ug/L		05/14/12 16:21	05/18/12 02:54	50
4-Bromophenyl phenyl ether	4.9	U	74	4.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Hexachlorobenzene	5.4	U	74	5.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Pentachlorophenol	30	U	120	30	ug/L		05/14/12 16:21	05/18/12 02:54	50
Phenanthrene	3.0	U	74	3.0	ug/L		05/14/12 16:21	05/18/12 02:54	50
Anthracene	2.5	U	49	2.5	ug/L		05/14/12 16:21	05/18/12 02:54	50
Di-n-butyl phthalate	5.4	U	120	5.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Fluoranthene	3.4	U	120	3.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Pyrene	5.4	U	99	5.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Butyl benzyl phthalate	5.9	U	120	5.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
3,3'-Dichlorobenzidine	8.9	U	490	8.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Benzo[a]anthracene	3.9	U	99	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Bis(2-ethylhexyl) phthalate	18	U	120	18	ug/L		05/14/12 16:21	05/18/12 02:54	50
Chrysene	3.9	U	74	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Di-n-octyl phthalate	7.9	U	250	7.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Benzo[b]fluoranthene	3.4	U	99	3.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Benzo[k]fluoranthene	4.4	U	99	4.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Benzo[a]pyrene	3.9	U	74	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Indeno[1,2,3-cd]pyrene	3.4	U	99	3.4	ug/L		05/14/12 16:21	05/18/12 02:54	50
Dibenz(a,h)anthracene	3.9	U	120	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Benzo[g,h,i]perylene	3.9	U	120	3.9	ug/L		05/14/12 16:21	05/18/12 02:54	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94				05/14/12 16:21	05/18/12 02:54	50
2,4,6-Tribromophenol	0	X	10 - 123				05/14/12 16:21	05/18/12 02:54	50
2-Fluorobiphenyl	0	X	43 - 116				05/14/12 16:21	05/18/12 02:54	50
2-Fluorophenol	0	X	10 - 100				05/14/12 16:21	05/18/12 02:54	50
Nitrobenzene-d5	0	X	35 - 114				05/14/12 16:21	05/18/12 02:54	50
Terphenyl-d14	0	X	33 - 141				05/14/12 16:21	05/18/12 02:54	50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-3

Lab Sample ID: 600-54839-7

Date Collected: 05/10/12 16:20

Matrix: Water

Date Received: 05/11/12 10:10

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	280		9.7	4.0	mg/L		05/15/12 14:14	05/16/12 13:07	5
>C12-C28	160		9.7	4.7	mg/L		05/15/12 14:14	05/16/12 13:07	5
>C28-C35	21		9.7	4.7	mg/L		05/15/12 14:14	05/16/12 13:07	5
C6-C35	460		9.7	7.6	mg/L		05/15/12 14:14	05/16/12 13:07	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	168	X	70 - 130				05/15/12 14:14	05/16/12 13:07	5

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.095		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:03	1
Aluminum	0.066	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:03	1
Barium	0.44		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:03	1
Cobalt	0.0025	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:03	1
Chromium	0.0018	J	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:03	1
Copper	0.0081	J B	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:03	1
Manganese	1.0		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:03	1
Nickel	0.0047	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:03	1
Lead	0.033		0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:03	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:03	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:03	1
Vanadium	0.0068	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:03	1
Zinc	0.0091	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:03	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:03	1

Client Sample ID: MW-2

Lab Sample ID: 600-54839-8

Date Collected: 05/10/12 17:15

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.60	U *	5.0	0.60	ug/L			05/15/12 14:36	5
Chloromethane	0.90	U	10	0.90	ug/L			05/15/12 14:36	5
Vinyl chloride	0.55	U	10	0.55	ug/L			05/15/12 14:36	5
Bromomethane	1.3	U	10	1.3	ug/L			05/15/12 14:36	5
Chloroethane	0.40	U	10	0.40	ug/L			05/15/12 14:36	5
Trichlorofluoromethane	0.40	U	5.0	0.40	ug/L			05/15/12 14:36	5
1,1-Dichloroethene	0.95	U	5.0	0.95	ug/L			05/15/12 14:36	5
trans-1,2-Dichloroethene	0.45	U	5.0	0.45	ug/L			05/15/12 14:36	5
Methyl tert-butyl ether	1.9	J	5.0	0.60	ug/L			05/15/12 14:36	5
Acetone	5.0	U	25	5.0	ug/L			05/15/12 14:36	5
Iodomethane	10	U	10	10	ug/L			05/15/12 14:36	5
Carbon disulfide	1.2	U	10	1.2	ug/L			05/15/12 14:36	5
Methylene Chloride	0.95	J	25	0.75	ug/L			05/15/12 14:36	5
cis-1,2-Dichloroethene	0.30	U	5.0	0.30	ug/L			05/15/12 14:36	5
2-Butanone (MEK)	3.8	U	10	3.8	ug/L			05/15/12 14:36	5
Carbon tetrachloride	0.75	U	5.0	0.75	ug/L			05/15/12 14:36	5
1,2-Dichloroethane	0.70	U	5.0	0.70	ug/L			05/15/12 14:36	5
Trichloroethene	0.90	U	5.0	0.90	ug/L			05/15/12 14:36	5

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-2

Lab Sample ID: 600-54839-8

Date Collected: 05/10/12 17:15

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.75	U	5.0	0.75	ug/L			05/15/12 14:36	5
1,1-Dichloroethane	0.55	U	5.0	0.55	ug/L			05/15/12 14:36	5
1,2-Dichloropropane	2.4	J	5.0	0.80	ug/L			05/15/12 14:36	5
2,2-Dichloropropane	0.65	U	5.0	0.65	ug/L			05/15/12 14:36	5
Dibromomethane	2.6	U	5.0	2.6	ug/L			05/15/12 14:36	5
Chloroform	0.65	U	5.0	0.65	ug/L			05/15/12 14:36	5
Bromodichloromethane	0.80	U	5.0	0.80	ug/L			05/15/12 14:36	5
1,1-Dichloropropene	1.1	U	5.0	1.1	ug/L			05/15/12 14:36	5
cis-1,3-Dichloropropene	0.90	U	5.0	0.90	ug/L			05/15/12 14:36	5
4-Methyl-2-pentanone (MIBK)	2.3	U	10	2.3	ug/L			05/15/12 14:36	5
Toluene	2.8	J	5.0	0.75	ug/L			05/15/12 14:36	5
trans-1,3-Dichloropropene	1.1	U	5.0	1.1	ug/L			05/15/12 14:36	5
1,1,2-Trichloroethane	1.4	U	5.0	1.4	ug/L			05/15/12 14:36	5
Tetrachloroethene	0.65	U	5.0	0.65	ug/L			05/15/12 14:36	5
1,3-Dichloropropane	1.1	U	5.0	1.1	ug/L			05/15/12 14:36	5
2-Hexanone	1.8	U	10	1.8	ug/L			05/15/12 14:36	5
Dibromochloromethane	0.75	U	5.0	0.75	ug/L			05/15/12 14:36	5
1,2-Dibromoethane	0.90	U	5.0	0.90	ug/L			05/15/12 14:36	5
Chlorobenzene	0.60	U	5.0	0.60	ug/L			05/15/12 14:36	5
1,1,1,2-Tetrachloroethane	0.90	U	5.0	0.90	ug/L			05/15/12 14:36	5
Ethylbenzene	3.0	J	5.0	0.55	ug/L			05/15/12 14:36	5
Xylenes, Total	2.0	J	5.0	1.3	ug/L			05/15/12 14:36	5
Styrene	0.35	U	5.0	0.35	ug/L			05/15/12 14:36	5
Bromoform	0.95	U	5.0	0.95	ug/L			05/15/12 14:36	5
Isopropylbenzene	29		5.0	0.90	ug/L			05/15/12 14:36	5
Bromobenzene	0.95	U	5.0	0.95	ug/L			05/15/12 14:36	5
1,2,3-Trichloropropane	1.5	U	5.0	1.5	ug/L			05/15/12 14:36	5
1,1,2,2-Tetrachloroethane	1.1	U	5.0	1.1	ug/L			05/15/12 14:36	5
N-Propylbenzene	31		5.0	0.75	ug/L			05/15/12 14:36	5
2-Chlorotoluene	0.65	U	5.0	0.65	ug/L			05/15/12 14:36	5
4-Chlorotoluene	0.70	U	5.0	0.70	ug/L			05/15/12 14:36	5
1,3,5-Trimethylbenzene	0.50	U	5.0	0.50	ug/L			05/15/12 14:36	5
tert-Butylbenzene	0.89	J	5.0	0.40	ug/L			05/15/12 14:36	5
4-Isopropyltoluene	2.3	J	5.0	0.50	ug/L			05/15/12 14:36	5
1,2,4-Trimethylbenzene	0.70	U	5.0	0.70	ug/L			05/15/12 14:36	5
sec-Butylbenzene	3.4	J	5.0	0.60	ug/L			05/15/12 14:36	5
1,3-Dichlorobenzene	0.65	U	5.0	0.65	ug/L			05/15/12 14:36	5
1,4-Dichlorobenzene	0.55	U	5.0	0.55	ug/L			05/15/12 14:36	5
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/L			05/15/12 14:36	5
n-Butylbenzene	3.2	J	5.0	0.80	ug/L			05/15/12 14:36	5
1,2-Dibromo-3-Chloropropane	4.1	U	5.0	4.1	ug/L			05/15/12 14:36	5
1,2,4-Trichlorobenzene	1.6	U	5.0	1.6	ug/L			05/15/12 14:36	5
Hexachlorobutadiene	0.85	U	5.0	0.85	ug/L			05/15/12 14:36	5
Naphthalene	2.2	J	5.0	1.6	ug/L			05/15/12 14:36	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139					05/15/12 14:36	5
Dibromofluoromethane	83		62 - 130					05/15/12 14:36	5
Toluene-d8 (Surr)	84		70 - 130					05/15/12 14:36	5
1,2-Dichloroethane-d4 (Surr)	78		50 - 134					05/15/12 14:36	5

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-2

Lab Sample ID: 600-54839-8

Date Collected: 05/10/12 17:15

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	390		50	4.0	ug/L			05/15/12 07:14	50
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139					05/15/12 07:14	50
Dibromofluoromethane	80		62 - 130					05/15/12 07:14	50
Toluene-d8 (Surr)	88		70 - 130					05/15/12 07:14	50
1,2-Dichloroethane-d4 (Surr)	80		50 - 134					05/15/12 07:14	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
Phenol	0.39	U	15	0.39	ug/L		05/14/12 16:21	05/18/12 03:20	10
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 03:20	10
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzyl alcohol	1.7	U	54	1.7	ug/L		05/14/12 16:21	05/18/12 03:20	10
Bis(2-chloroisopropyl) ether	3.9	U	15	3.9	ug/L		05/14/12 16:21	05/18/12 03:20	10
3 & 4 Methylphenol	2.0	U	9.9	2.0	ug/L		05/14/12 16:21	05/18/12 03:20	10
N-Nitrosodi-n-propylamine	0.99	U	25	0.99	ug/L		05/14/12 16:21	05/18/12 03:20	10
Hexachloroethane	0.99	U	20	0.99	ug/L		05/14/12 16:21	05/18/12 03:20	10
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 03:20	10
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 03:20	10
2-Nitrophenol	2.2	U	9.9	2.2	ug/L		05/14/12 16:21	05/18/12 03:20	10
2,4-Dimethylphenol	3.1	U	25	3.1	ug/L		05/14/12 16:21	05/18/12 03:20	10
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 03:20	10
2,4-Dichlorophenol	1.5	U	25	1.5	ug/L		05/14/12 16:21	05/18/12 03:20	10
4-Chloroaniline	2.1	U	9.9	2.1	ug/L		05/14/12 16:21	05/18/12 03:20	10
4-Chloro-3-methylphenol	1.7	U	9.9	1.7	ug/L		05/14/12 16:21	05/18/12 03:20	10
2-Methylnaphthalene	51		15	0.69	ug/L		05/14/12 16:21	05/18/12 03:20	10
Hexachlorocyclopentadiene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 03:20	10
2,4,6-Trichlorophenol	1.8	U	20	1.8	ug/L		05/14/12 16:21	05/18/12 03:20	10
2,4,5-Trichlorophenol	2.5	U	20	2.5	ug/L		05/14/12 16:21	05/18/12 03:20	10
2-Chloronaphthalene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
2-Nitroaniline	1.9	U	25	1.9	ug/L		05/14/12 16:21	05/18/12 03:20	10
Dimethyl phthalate	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 03:20	10
Acenaphthylene	0.59	U	9.9	0.59	ug/L		05/14/12 16:21	05/18/12 03:20	10
2,6-Dinitrotoluene	0.79	U	9.9	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
3-Nitroaniline	1.6	U	25	1.6	ug/L		05/14/12 16:21	05/18/12 03:20	10
Acenaphthene	1.5 J		9.9	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
2,4-Dinitrophenol	3.8	U	49	3.8	ug/L		05/14/12 16:21	05/18/12 03:20	10
4-Nitrophenol	5.5	U	25	5.5	ug/L		05/14/12 16:21	05/18/12 03:20	10
Dibenzofuran	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
2,4-Dinitrotoluene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 03:20	10
Diethyl phthalate	15	U	25	15	ug/L		05/14/12 16:21	05/18/12 03:20	10
4-Chlorophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 03:20	10
Fluorene	1.6 J		15	0.69	ug/L		05/14/12 16:21	05/18/12 03:20	10
4-Nitroaniline	2.5	U	25	2.5	ug/L		05/14/12 16:21	05/18/12 03:20	10
4,6-Dinitro-2-methylphenol	8.2	U	25	8.2	ug/L		05/14/12 16:21	05/18/12 03:20	10
4-Bromophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 03:20	10
Hexachlorobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 03:20	10
Pentachlorophenol	6.0	U	25	6.0	ug/L		05/14/12 16:21	05/18/12 03:20	10
Phenanthrene	0.59	U	15	0.59	ug/L		05/14/12 16:21	05/18/12 03:20	10

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-2

Lab Sample ID: 600-54839-8

Date Collected: 05/10/12 17:15

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Anthracene	0.49	U	9.9	0.49	ug/L		05/14/12 16:21	05/18/12 03:20	10
Di-n-butyl phthalate	1.1	U	25	1.1	ug/L		05/14/12 16:21	05/18/12 03:20	10
Fluoranthene	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 03:20	10
Pyrene	1.1	U	20	1.1	ug/L		05/14/12 16:21	05/18/12 03:20	10
Butyl benzyl phthalate	1.2	U	25	1.2	ug/L		05/14/12 16:21	05/18/12 03:20	10
3,3'-Dichlorobenzidine	1.8	U	99	1.8	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzo[a]anthracene	0.79	U	20	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
Bis(2-ethylhexyl) phthalate	3.6	U	25	3.6	ug/L		05/14/12 16:21	05/18/12 03:20	10
Chrysene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
Di-n-octyl phthalate	1.6	U	49	1.6	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzo[b]fluoranthene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzo[k]fluoranthene	0.89	U	20	0.89	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzo[a]pyrene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
Indeno[1,2,3-cd]pyrene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 03:20	10
Dibenz(a,h)anthracene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10
Benzo[g,h,i]perylene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 03:20	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	27		10 - 94	05/14/12 16:21	05/18/12 03:20	10
2,4,6-Tribromophenol	62		10 - 123	05/14/12 16:21	05/18/12 03:20	10
2-Fluorobiphenyl	87		43 - 116	05/14/12 16:21	05/18/12 03:20	10
2-Fluorophenol	39		10 - 100	05/14/12 16:21	05/18/12 03:20	10
Nitrobenzene-d5	90		35 - 114	05/14/12 16:21	05/18/12 03:20	10
Terphenyl-d14	87		33 - 141	05/14/12 16:21	05/18/12 03:20	10

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.81	U	2.0	0.81	mg/L		05/15/12 14:14	05/16/12 06:48	1
>C12-C28	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 06:48	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 06:48	1
C6-C35	1.5	U	2.0	1.5	mg/L		05/15/12 14:14	05/16/12 06:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	97		70 - 130	05/15/12 14:14	05/16/12 06:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.38		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:05	1
Aluminum	0.077	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:05	1
Barium	0.18		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:05	1
Cobalt	0.0010	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:05	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:05	1
Copper	0.0015	J B	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:05	1
Manganese	0.36		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:05	1
Nickel	0.0033	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:05	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:05	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:05	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:05	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 19:05	1
Zinc	0.0048	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:05	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-2

Lab Sample ID: 600-54839-8

Date Collected: 05/10/12 17:15

Matrix: Water

Date Received: 05/11/12 10:10

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:05	1

Client Sample ID: MW-4

Lab Sample ID: 600-54839-9

Date Collected: 05/09/12 11:00

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.60	U *	5.0	0.60	ug/L			05/16/12 10:09	5
Chloromethane	0.90	U	10	0.90	ug/L			05/16/12 10:09	5
Vinyl chloride	0.55	U	10	0.55	ug/L			05/16/12 10:09	5
Bromomethane	1.3	U	10	1.3	ug/L			05/16/12 10:09	5
Chloroethane	0.40	U	10	0.40	ug/L			05/16/12 10:09	5
Trichlorofluoromethane	0.40	U	5.0	0.40	ug/L			05/16/12 10:09	5
1,1-Dichloroethene	0.95	U	5.0	0.95	ug/L			05/16/12 10:09	5
trans-1,2-Dichloroethene	0.45	U	5.0	0.45	ug/L			05/16/12 10:09	5
Methyl tert-butyl ether	0.60	U	5.0	0.60	ug/L			05/16/12 10:09	5
Acetone	5.0	U	25	5.0	ug/L			05/16/12 10:09	5
Iodomethane	10	U	10	10	ug/L			05/16/12 10:09	5
Carbon disulfide	1.2	U	10	1.2	ug/L			05/16/12 10:09	5
Methylene Chloride	0.75	U	25	0.75	ug/L			05/16/12 10:09	5
cis-1,2-Dichloroethene	0.30	U	5.0	0.30	ug/L			05/16/12 10:09	5
2-Butanone (MEK)	3.8	U	10	3.8	ug/L			05/16/12 10:09	5
Carbon tetrachloride	0.75	U	5.0	0.75	ug/L			05/16/12 10:09	5
Benzene	0.41	J	5.0	0.40	ug/L			05/16/12 10:09	5
1,2-Dichloroethane	0.70	U	5.0	0.70	ug/L			05/16/12 10:09	5
Trichloroethene	0.90	U	5.0	0.90	ug/L			05/16/12 10:09	5
1,1,1-Trichloroethane	0.75	U	5.0	0.75	ug/L			05/16/12 10:09	5
1,1-Dichloroethane	0.55	U	5.0	0.55	ug/L			05/16/12 10:09	5
1,2-Dichloropropane	0.80	U	5.0	0.80	ug/L			05/16/12 10:09	5
2,2-Dichloropropane	0.65	U	5.0	0.65	ug/L			05/16/12 10:09	5
Dibromomethane	2.6	U	5.0	2.6	ug/L			05/16/12 10:09	5
Chloroform	0.65	U	5.0	0.65	ug/L			05/16/12 10:09	5
Bromodichloromethane	0.80	U	5.0	0.80	ug/L			05/16/12 10:09	5
1,1-Dichloropropene	1.1	U	5.0	1.1	ug/L			05/16/12 10:09	5
cis-1,3-Dichloropropene	0.90	U	5.0	0.90	ug/L			05/16/12 10:09	5
4-Methyl-2-pentanone (MIBK)	2.3	U	10	2.3	ug/L			05/16/12 10:09	5
Toluene	0.75	U	5.0	0.75	ug/L			05/16/12 10:09	5
trans-1,3-Dichloropropene	1.1	U	5.0	1.1	ug/L			05/16/12 10:09	5
1,1,2-Trichloroethane	1.4	U	5.0	1.4	ug/L			05/16/12 10:09	5
Tetrachloroethene	0.65	U	5.0	0.65	ug/L			05/16/12 10:09	5
1,3-Dichloropropane	1.1	U	5.0	1.1	ug/L			05/16/12 10:09	5
2-Hexanone	1.8	U	10	1.8	ug/L			05/16/12 10:09	5
Dibromochloromethane	0.75	U	5.0	0.75	ug/L			05/16/12 10:09	5
1,2-Dibromoethane	0.90	U	5.0	0.90	ug/L			05/16/12 10:09	5
Chlorobenzene	0.60	U	5.0	0.60	ug/L			05/16/12 10:09	5
1,1,1,2-Tetrachloroethane	0.90	U	5.0	0.90	ug/L			05/16/12 10:09	5
Ethylbenzene	0.55	U	5.0	0.55	ug/L			05/16/12 10:09	5
Xylenes, Total	1.3	U	5.0	1.3	ug/L			05/16/12 10:09	5
Styrene	0.35	U	5.0	0.35	ug/L			05/16/12 10:09	5
Bromoform	0.95	U	5.0	0.95	ug/L			05/16/12 10:09	5

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-4

Lab Sample ID: 600-54839-9

Date Collected: 05/09/12 11:00

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Isopropylbenzene	0.90	U	5.0	0.90	ug/L			05/16/12 10:09	5
Bromobenzene	0.95	U	5.0	0.95	ug/L			05/16/12 10:09	5
1,2,3-Trichloropropane	1.5	U	5.0	1.5	ug/L			05/16/12 10:09	5
1,1,2,2-Tetrachloroethane	1.1	U	5.0	1.1	ug/L			05/16/12 10:09	5
N-Propylbenzene	0.75	U	5.0	0.75	ug/L			05/16/12 10:09	5
2-Chlorotoluene	0.65	U	5.0	0.65	ug/L			05/16/12 10:09	5
4-Chlorotoluene	0.70	U	5.0	0.70	ug/L			05/16/12 10:09	5
1,3,5-Trimethylbenzene	0.50	U	5.0	0.50	ug/L			05/16/12 10:09	5
tert-Butylbenzene	0.40	U	5.0	0.40	ug/L			05/16/12 10:09	5
4-Isopropyltoluene	0.50	U	5.0	0.50	ug/L			05/16/12 10:09	5
1,2,4-Trimethylbenzene	0.70	U	5.0	0.70	ug/L			05/16/12 10:09	5
sec-Butylbenzene	0.60	U	5.0	0.60	ug/L			05/16/12 10:09	5
1,3-Dichlorobenzene	0.65	U	5.0	0.65	ug/L			05/16/12 10:09	5
1,4-Dichlorobenzene	0.55	U	5.0	0.55	ug/L			05/16/12 10:09	5
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/L			05/16/12 10:09	5
n-Butylbenzene	0.80	U	5.0	0.80	ug/L			05/16/12 10:09	5
1,2-Dibromo-3-Chloropropane	4.1	U	5.0	4.1	ug/L			05/16/12 10:09	5
1,2,4-Trichlorobenzene	1.6	U	5.0	1.6	ug/L			05/16/12 10:09	5
Hexachlorobutadiene	0.85	U	5.0	0.85	ug/L			05/16/12 10:09	5
Naphthalene	1.6	U	5.0	1.6	ug/L			05/16/12 10:09	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139		05/16/12 10:09	5
Dibromofluoromethane	78		62 - 130		05/16/12 10:09	5
Toluene-d8 (Surr)	87		70 - 130		05/16/12 10:09	5
1,2-Dichloroethane-d4 (Surr)	77		50 - 134		05/16/12 10:09	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1
Phenol	0.039	U	1.5	0.039	ug/L		05/14/12 16:21	05/15/12 20:05	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:05	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/15/12 20:05	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/14/12 16:21	05/15/12 20:05	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/14/12 16:21	05/15/12 20:05	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 20:05	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:05	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/14/12 16:21	05/15/12 20:05	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:05	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:05	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/15/12 20:05	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:05	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/14/12 16:21	05/15/12 20:05	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/14/12 16:21	05/15/12 20:05	1
2-Methylnaphthalene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/15/12 20:05	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-4

Lab Sample ID: 600-54839-9

Date Collected: 05/09/12 11:00

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/14/12 16:21	05/15/12 20:05	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/15/12 20:05	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/14/12 16:21	05/15/12 20:05	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/14/12 16:21	05/15/12 20:05	1
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:05	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/14/12 16:21	05/15/12 20:05	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:05	1
Fluorene	0.20	J	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/15/12 20:05	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/14/12 16:21	05/15/12 20:05	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:05	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:05	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/14/12 16:21	05/15/12 20:05	1
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/14/12 16:21	05/15/12 20:05	1
Anthracene	0.049	U	0.99	0.049	ug/L		05/14/12 16:21	05/15/12 20:05	1
Di-n-butyl phthalate	0.11	U	2.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:05	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/14/12 16:21	05/15/12 20:05	1
Butyl benzyl phthalate	0.12	U	2.5	0.12	ug/L		05/14/12 16:21	05/15/12 20:05	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/14/12 16:21	05/15/12 20:05	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1
Bis(2-ethylhexyl) phthalate	0.36	U	2.5	0.36	ug/L		05/14/12 16:21	05/15/12 20:05	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/14/12 16:21	05/15/12 20:05	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/14/12 16:21	05/15/12 20:05	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:05	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:05	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	22		10 - 94	05/14/12 16:21	05/15/12 20:05	1
2,4,6-Tribromophenol	63		10 - 123	05/14/12 16:21	05/15/12 20:05	1
2-Fluorobiphenyl	61		43 - 116	05/14/12 16:21	05/15/12 20:05	1
2-Fluorophenol	30		10 - 100	05/14/12 16:21	05/15/12 20:05	1
Nitrobenzene-d5	62		35 - 114	05/14/12 16:21	05/15/12 20:05	1
Terphenyl-d14	55		33 - 141	05/14/12 16:21	05/15/12 20:05	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.81	U	2.0	0.81	mg/L		05/15/12 14:14	05/16/12 07:22	1
>C12-C28	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 07:22	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 07:22	1
C6-C35	1.5	U	2.0	1.5	mg/L		05/15/12 14:14	05/16/12 07:22	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-4

Date Collected: 05/09/12 11:00

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-9

Matrix: Water

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	89		70 - 130	05/15/12 14:14	05/16/12 07:22	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0034	J	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:08	1
Aluminum	0.051	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:08	1
Barium	0.23		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:08	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:08	1
Chromium	0.0022	J	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:08	1
Copper	0.0049	J B	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:08	1
Manganese	0.31		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:08	1
Nickel	0.0032	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:08	1
Lead	0.0032	J	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:08	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:08	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:08	1
Vanadium	0.0088	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:12	1
Zinc	0.012	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:08	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:11	1

Client Sample ID: MW-20

Date Collected: 05/09/12 12:15

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-10

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 01:04	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 01:04	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 01:04	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 01:04	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 01:04	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 01:04	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 01:04	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 01:04	1
Methyl tert-butyl ether	3.1		1.0	0.12	ug/L			05/15/12 01:04	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 01:04	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 01:04	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 01:04	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 01:04	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 01:04	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 01:04	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 01:04	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 01:04	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 01:04	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 01:04	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 01:04	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 01:04	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 01:04	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 01:04	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 01:04	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-20

Lab Sample ID: 600-54839-10

Date Collected: 05/09/12 12:15

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 01:04	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 01:04	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 01:04	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 01:04	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 01:04	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 01:04	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 01:04	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 01:04	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 01:04	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 01:04	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 01:04	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 01:04	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 01:04	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 01:04	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 01:04	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 01:04	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 01:04	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 01:04	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 01:04	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 01:04	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 01:04	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 01:04	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 01:04	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 01:04	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 01:04	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 01:04	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 01:04	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 01:04	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 01:04	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 01:04	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 01:04	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 01:04	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 01:04	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 01:04	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 01:04	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 01:04	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 01:04	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 01:04	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 01:04	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		67 - 139		05/15/12 01:04	1
Dibromofluoromethane	80		62 - 130		05/15/12 01:04	1
Toluene-d8 (Surr)	87		70 - 130		05/15/12 01:04	1
1,2-Dichloroethane-d4 (Surr)	77		50 - 134		05/15/12 01:04	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
Phenol	0.039	U	1.5	0.039	ug/L		05/14/12 16:21	05/15/12 20:31	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:31	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-20

Lab Sample ID: 600-54839-10

Date Collected: 05/09/12 12:15

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/15/12 20:31	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/14/12 16:21	05/15/12 20:31	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/14/12 16:21	05/15/12 20:31	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 20:31	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:31	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/14/12 16:21	05/15/12 20:31	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:31	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:31	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/14/12 16:21	05/15/12 20:31	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/15/12 20:31	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:31	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:31	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/14/12 16:21	05/15/12 20:31	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/14/12 16:21	05/15/12 20:31	1
2-Methylnaphthalene	0.20	J	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:31	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:31	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/15/12 20:31	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/15/12 20:31	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/14/12 16:21	05/15/12 20:31	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:31	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/14/12 16:21	05/15/12 20:31	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/15/12 20:31	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/14/12 16:21	05/15/12 20:31	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/14/12 16:21	05/15/12 20:31	1
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:31	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/14/12 16:21	05/15/12 20:31	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:31	1
Fluorene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:31	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/15/12 20:31	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/14/12 16:21	05/15/12 20:31	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:31	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:31	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/14/12 16:21	05/15/12 20:31	1
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/14/12 16:21	05/15/12 20:31	1
Anthracene	0.049	U	0.99	0.049	ug/L		05/14/12 16:21	05/15/12 20:31	1
Di-n-butyl phthalate	0.11	J	2.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:31	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:31	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/14/12 16:21	05/15/12 20:31	1
Butyl benzyl phthalate	0.31	J	2.5	0.12	ug/L		05/14/12 16:21	05/15/12 20:31	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/14/12 16:21	05/15/12 20:31	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
Bis(2-ethylhexyl) phthalate	0.36	U	2.5	0.36	ug/L		05/14/12 16:21	05/15/12 20:31	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/14/12 16:21	05/15/12 20:31	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:31	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/14/12 16:21	05/15/12 20:31	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-20

Lab Sample ID: 600-54839-10

Date Collected: 05/09/12 12:15

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:31	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94				05/14/12 16:21	05/15/12 20:31	1
2,4,6-Tribromophenol	62		10 - 123				05/14/12 16:21	05/15/12 20:31	1
2-Fluorobiphenyl	64		43 - 116				05/14/12 16:21	05/15/12 20:31	1
2-Fluorophenol	29		10 - 100				05/14/12 16:21	05/15/12 20:31	1
Nitrobenzene-d5	62		35 - 114				05/14/12 16:21	05/15/12 20:31	1
Terphenyl-d14	62		33 - 141				05/14/12 16:21	05/15/12 20:31	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.80	U	1.9	0.80	mg/L		05/15/12 14:14	05/16/12 07:56	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 07:56	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 07:56	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/15/12 14:14	05/16/12 07:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	91		70 - 130				05/15/12 14:14	05/16/12 07:56	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:10	1
Aluminum	0.10	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:10	1
Barium	0.14		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:10	1
Cobalt	0.00070	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:10	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:10	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:10	1
Manganese	0.083		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:10	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:10	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:10	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:10	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:10	1
Vanadium	0.0061	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:15	1
Zinc	0.0044	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:13	1

Client Sample ID: MW-9

Lab Sample ID: 600-54839-11

Date Collected: 05/09/12 14:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 01:32	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 01:32	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 01:32	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 01:32	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-9

Lab Sample ID: 600-54839-11

Date Collected: 05/09/12 14:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 01:32	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 01:32	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 01:32	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 01:32	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 01:32	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 01:32	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 01:32	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 01:32	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 01:32	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 01:32	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 01:32	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 01:32	1
Benzene	0.23	J	1.0	0.080	ug/L			05/15/12 01:32	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 01:32	1
Trichloroethene	1.2		1.0	0.18	ug/L			05/15/12 01:32	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 01:32	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 01:32	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 01:32	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 01:32	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 01:32	1
Chloroform	0.38	J	1.0	0.13	ug/L			05/15/12 01:32	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 01:32	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 01:32	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 01:32	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 01:32	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 01:32	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 01:32	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 01:32	1
Tetrachloroethene	1.2		1.0	0.13	ug/L			05/15/12 01:32	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 01:32	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 01:32	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 01:32	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 01:32	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 01:32	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 01:32	1
Ethylbenzene	1.2		1.0	0.11	ug/L			05/15/12 01:32	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 01:32	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 01:32	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 01:32	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 01:32	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 01:32	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 01:32	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 01:32	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 01:32	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 01:32	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 01:32	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 01:32	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 01:32	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 01:32	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 01:32	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 01:32	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-9

Lab Sample ID: 600-54839-11

Date Collected: 05/09/12 14:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 01:32	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 01:32	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 01:32	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 01:32	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 01:32	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 01:32	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 01:32	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 01:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139					05/15/12 01:32	1
Dibromofluoromethane	78		62 - 130					05/15/12 01:32	1
Toluene-d8 (Surr)	87		70 - 130					05/15/12 01:32	1
1,2-Dichloroethane-d4 (Surr)	77		50 - 134					05/15/12 01:32	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Phenol	0.039	U	1.5	0.039	ug/L		05/14/12 16:21	05/15/12 20:56	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:56	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/14/12 16:21	05/15/12 20:56	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/14/12 16:21	05/15/12 20:56	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 20:56	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:56	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/14/12 16:21	05/15/12 20:56	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:56	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:56	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/15/12 20:56	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/14/12 16:21	05/15/12 20:56	1
2-Methylnaphthalene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/15/12 20:56	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/14/12 16:21	05/15/12 20:56	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/15/12 20:56	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/14/12 16:21	05/15/12 20:56	1
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 20:56	1
Diethyl phthalate	1.5	J	2.5	1.5	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:56	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-9

Lab Sample ID: 600-54839-11

Date Collected: 05/09/12 14:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/15/12 20:56	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/14/12 16:21	05/15/12 20:56	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 20:56	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:56	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/14/12 16:21	05/15/12 20:56	1
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/14/12 16:21	05/15/12 20:56	1
Anthracene	0.049	U	0.99	0.049	ug/L		05/14/12 16:21	05/15/12 20:56	1
Di-n-butyl phthalate	0.29	J	2.5	0.11	ug/L		05/14/12 16:21	05/15/12 20:56	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/14/12 16:21	05/15/12 20:56	1
Butyl benzyl phthalate	0.28	J	2.5	0.12	ug/L		05/14/12 16:21	05/15/12 20:56	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Bis(2-ethylhexyl) phthalate	0.42	J	2.5	0.36	ug/L		05/14/12 16:21	05/15/12 20:56	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 20:56	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 20:56	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94	05/14/12 16:21	05/15/12 20:56	1
2,4,6-Tribromophenol	66		10 - 123	05/14/12 16:21	05/15/12 20:56	1
2-Fluorobiphenyl	68		43 - 116	05/14/12 16:21	05/15/12 20:56	1
2-Fluorophenol	29		10 - 100	05/14/12 16:21	05/15/12 20:56	1
Nitrobenzene-d5	60		35 - 114	05/14/12 16:21	05/15/12 20:56	1
Terphenyl-d14	69		33 - 141	05/14/12 16:21	05/15/12 20:56	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.80	U	1.9	0.80	mg/L		05/15/12 14:14	05/16/12 08:30	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 08:30	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 08:30	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/15/12 14:14	05/16/12 08:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		70 - 130	05/15/12 14:14	05/16/12 08:30	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:12	1
Aluminum	0.034	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:12	1
Barium	0.21		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:12	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:12	1
Chromium	0.0016	J	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:12	1
Copper	0.0022	J B	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:12	1
Manganese	0.024		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:12	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:12	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-9

Lab Sample ID: 600-54839-11

Date Collected: 05/09/12 14:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:12	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:12	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:12	1
Vanadium	0.0092	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:17	1
Zinc	0.0031	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:12	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:14	1

Client Sample ID: MW-21

Lab Sample ID: 600-54839-12

Date Collected: 05/09/12 15:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 02:01	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 02:01	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 02:01	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 02:01	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 02:01	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 02:01	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 02:01	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 02:01	1
Methyl tert-butyl ether	0.37	J	1.0	0.12	ug/L			05/15/12 02:01	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 02:01	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 02:01	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 02:01	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 02:01	1
cis-1,2-Dichloroethene	0.82	J	1.0	0.060	ug/L			05/15/12 02:01	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 02:01	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 02:01	1
Benzene	0.33	J	1.0	0.080	ug/L			05/15/12 02:01	1
1,2-Dichloroethane	0.72	J	1.0	0.14	ug/L			05/15/12 02:01	1
Trichloroethene	2.3		1.0	0.18	ug/L			05/15/12 02:01	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 02:01	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 02:01	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 02:01	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 02:01	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 02:01	1
Chloroform	0.17	J	1.0	0.13	ug/L			05/15/12 02:01	1
Bromodichloromethane	1.2		1.0	0.16	ug/L			05/15/12 02:01	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:01	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 02:01	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 02:01	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 02:01	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:01	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 02:01	1
Tetrachloroethene	1.2		1.0	0.13	ug/L			05/15/12 02:01	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 02:01	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 02:01	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-21

Lab Sample ID: 600-54839-12

Date Collected: 05/09/12 15:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 02:01	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 02:01	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 02:01	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 02:01	1
Ethylbenzene	6.6		1.0	0.11	ug/L			05/15/12 02:01	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 02:01	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 02:01	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 02:01	1
Isopropylbenzene	1.9		1.0	0.18	ug/L			05/15/12 02:01	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 02:01	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 02:01	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 02:01	1
N-Propylbenzene	2.3		1.0	0.15	ug/L			05/15/12 02:01	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 02:01	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 02:01	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 02:01	1
tert-Butylbenzene	0.19	J	1.0	0.080	ug/L			05/15/12 02:01	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 02:01	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 02:01	1
sec-Butylbenzene	0.26	J	1.0	0.12	ug/L			05/15/12 02:01	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 02:01	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 02:01	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 02:01	1
n-Butylbenzene	0.37	J	1.0	0.16	ug/L			05/15/12 02:01	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 02:01	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 02:01	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 02:01	1
Naphthalene	3.3		1.0	0.32	ug/L			05/15/12 02:01	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		05/15/12 02:01	1
Dibromofluoromethane	83		62 - 130		05/15/12 02:01	1
Toluene-d8 (Surr)	91		70 - 130		05/15/12 02:01	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		05/15/12 02:01	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
Phenol	0.039	U	1.5	0.039	ug/L		05/14/12 16:21	05/15/12 21:22	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 21:22	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/15/12 21:22	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/14/12 16:21	05/15/12 21:22	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/14/12 16:21	05/15/12 21:22	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 21:22	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/14/12 16:21	05/15/12 21:22	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/14/12 16:21	05/15/12 21:22	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:22	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:22	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/14/12 16:21	05/15/12 21:22	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/15/12 21:22	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 21:22	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-21

Lab Sample ID: 600-54839-12

Date Collected: 05/09/12 15:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/15/12 21:22	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/14/12 16:21	05/15/12 21:22	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/14/12 16:21	05/15/12 21:22	1
2-Methylnaphthalene	0.11	J	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:22	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 21:22	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/15/12 21:22	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/15/12 21:22	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/14/12 16:21	05/15/12 21:22	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:22	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/14/12 16:21	05/15/12 21:22	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/15/12 21:22	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/14/12 16:21	05/15/12 21:22	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/14/12 16:21	05/15/12 21:22	1
Dibenzofuran	0.13	J	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 21:22	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/14/12 16:21	05/15/12 21:22	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 21:22	1
Fluorene	0.31	J	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:22	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/15/12 21:22	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/14/12 16:21	05/15/12 21:22	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 21:22	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:22	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/14/12 16:21	05/15/12 21:22	1
Phenanthrene	0.16	J	1.5	0.059	ug/L		05/14/12 16:21	05/15/12 21:22	1
Anthracene	0.049	U	0.99	0.049	ug/L		05/14/12 16:21	05/15/12 21:22	1
Di-n-butyl phthalate	0.14	J	2.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:22	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:22	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/14/12 16:21	05/15/12 21:22	1
Butyl benzyl phthalate	0.27	J	2.5	0.12	ug/L		05/14/12 16:21	05/15/12 21:22	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/14/12 16:21	05/15/12 21:22	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
Bis(2-ethylhexyl) phthalate	0.39	J	2.5	0.36	ug/L		05/14/12 16:21	05/15/12 21:22	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/14/12 16:21	05/15/12 21:22	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 21:22	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/14/12 16:21	05/15/12 21:22	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 21:22	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	20		10 - 94	05/14/12 16:21	05/15/12 21:22	1
2,4,6-Tribromophenol	77		10 - 123	05/14/12 16:21	05/15/12 21:22	1
2-Fluorobiphenyl	75		43 - 116	05/14/12 16:21	05/15/12 21:22	1
2-Fluorophenol	34		10 - 100	05/14/12 16:21	05/15/12 21:22	1
Nitrobenzene-d5	67		35 - 114	05/14/12 16:21	05/15/12 21:22	1
Terphenyl-d14	76		33 - 141	05/14/12 16:21	05/15/12 21:22	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-21

Lab Sample ID: 600-54839-12

Date Collected: 05/09/12 15:30

Matrix: Water

Date Received: 05/11/12 10:10

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.80	U	1.9	0.80	mg/L		05/15/12 14:14	05/16/12 09:05	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 09:05	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 09:05	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/15/12 14:14	05/16/12 09:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	88		70 - 130				05/15/12 14:14	05/16/12 09:05	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.019		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:15	1
Aluminum	0.14	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:15	1
Barium	0.11		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:15	1
Cobalt	0.0025	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:15	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:15	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:15	1
Manganese	0.29		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:15	1
Nickel	0.0022	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:15	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:15	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:15	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:15	1
Vanadium	0.0093	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:20	1
Zinc	0.0037	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:15	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:16	1

Client Sample ID: MW-22

Lab Sample ID: 600-54839-13

Date Collected: 05/09/12 16:40

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 02:30	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 02:30	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 02:30	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 02:30	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 02:30	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 02:30	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 02:30	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 02:30	1
Methyl tert-butyl ether	0.53	J	1.0	0.12	ug/L			05/15/12 02:30	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 02:30	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 02:30	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 02:30	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 02:30	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 02:30	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 02:30	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 02:30	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 02:30	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 02:30	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-22

Lab Sample ID: 600-54839-13

Date Collected: 05/09/12 16:40

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	1.2		1.0	0.18	ug/L			05/15/12 02:30	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 02:30	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 02:30	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 02:30	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 02:30	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 02:30	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 02:30	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 02:30	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:30	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 02:30	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 02:30	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 02:30	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:30	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 02:30	1
Tetrachloroethene	1.4		1.0	0.13	ug/L			05/15/12 02:30	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 02:30	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 02:30	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 02:30	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 02:30	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 02:30	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 02:30	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 02:30	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 02:30	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 02:30	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 02:30	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 02:30	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 02:30	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 02:30	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 02:30	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 02:30	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 02:30	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 02:30	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 02:30	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 02:30	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 02:30	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 02:30	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 02:30	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 02:30	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 02:30	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 02:30	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 02:30	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 02:30	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 02:30	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 02:30	1
Naphthalene	0.69	J	1.0	0.32	ug/L			05/15/12 02:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139					05/15/12 02:30	1
Dibromofluoromethane	82		62 - 130					05/15/12 02:30	1
Toluene-d8 (Surr)	85		70 - 130					05/15/12 02:30	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134					05/15/12 02:30	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-22

Lab Sample ID: 600-54839-13

Date Collected: 05/09/12 16:40

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
Phenol	0.039	U	1.5	0.039	ug/L		05/14/12 16:21	05/15/12 21:48	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/15/12 21:48	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/15/12 21:48	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/14/12 16:21	05/15/12 21:48	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/14/12 16:21	05/15/12 21:48	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/14/12 16:21	05/15/12 21:48	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/14/12 16:21	05/15/12 21:48	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/14/12 16:21	05/15/12 21:48	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:48	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:48	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/14/12 16:21	05/15/12 21:48	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/15/12 21:48	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 21:48	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/15/12 21:48	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/14/12 16:21	05/15/12 21:48	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/14/12 16:21	05/15/12 21:48	1
2-Methylnaphthalene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:48	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 21:48	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/15/12 21:48	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/15/12 21:48	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/14/12 16:21	05/15/12 21:48	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:48	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/14/12 16:21	05/15/12 21:48	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/15/12 21:48	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/14/12 16:21	05/15/12 21:48	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/14/12 16:21	05/15/12 21:48	1
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/15/12 21:48	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/14/12 16:21	05/15/12 21:48	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 21:48	1
Fluorene	0.069	U	1.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:48	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/15/12 21:48	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/14/12 16:21	05/15/12 21:48	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/14/12 16:21	05/15/12 21:48	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:48	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/14/12 16:21	05/15/12 21:48	1
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/14/12 16:21	05/15/12 21:48	1
Anthracene	0.049	U	0.99	0.049	ug/L		05/14/12 16:21	05/15/12 21:48	1
Di-n-butyl phthalate	0.11	U	2.5	0.11	ug/L		05/14/12 16:21	05/15/12 21:48	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/14/12 16:21	05/15/12 21:48	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/14/12 16:21	05/15/12 21:48	1
Butyl benzyl phthalate	0.27	J	2.5	0.12	ug/L		05/14/12 16:21	05/15/12 21:48	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/14/12 16:21	05/15/12 21:48	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
Bis(2-ethylhexyl) phthalate	0.46	J	2.5	0.36	ug/L		05/14/12 16:21	05/15/12 21:48	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/14/12 16:21	05/15/12 21:48	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-22

Lab Sample ID: 600-54839-13

Date Collected: 05/09/12 16:40

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 21:48	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/14/12 16:21	05/15/12 21:48	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/14/12 16:21	05/15/12 21:48	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/14/12 16:21	05/15/12 21:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94	05/14/12 16:21	05/15/12 21:48	1
2,4,6-Tribromophenol	62		10 - 123	05/14/12 16:21	05/15/12 21:48	1
2-Fluorobiphenyl	65		43 - 116	05/14/12 16:21	05/15/12 21:48	1
2-Fluorophenol	31		10 - 100	05/14/12 16:21	05/15/12 21:48	1
Nitrobenzene-d5	60		35 - 114	05/14/12 16:21	05/15/12 21:48	1
Terphenyl-d14	63		33 - 141	05/14/12 16:21	05/15/12 21:48	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.81	U	1.9	0.81	mg/L		05/15/12 14:14	05/16/12 09:39	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 09:39	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/15/12 14:14	05/16/12 09:39	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/15/12 14:14	05/16/12 09:39	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	92		70 - 130	05/15/12 14:14	05/16/12 09:39	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:17	1
Aluminum	0.041	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:17	1
Barium	0.18		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:17	1
Cobalt	0.00070	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:17	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:17	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:17	1
Manganese	0.19		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:17	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:17	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:17	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:17	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:17	1
Vanadium	0.0042	J	0.010	0.0017	mg/L		05/11/12 15:31	05/17/12 12:22	1
Zinc	0.0030	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:17	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:18	1

Client Sample ID: MW-18

Lab Sample ID: 600-54839-14

Date Collected: 05/09/12 17:50

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	24	U *	200	24	ug/L			05/15/12 08:11	200

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-18

Lab Sample ID: 600-54839-14

Date Collected: 05/09/12 17:50

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	36	U	400	36	ug/L			05/15/12 08:11	200
Vinyl chloride	22	U	400	22	ug/L			05/15/12 08:11	200
Bromomethane	50	U	400	50	ug/L			05/15/12 08:11	200
Chloroethane	16	U	400	16	ug/L			05/15/12 08:11	200
Trichlorofluoromethane	16	U	200	16	ug/L			05/15/12 08:11	200
1,1-Dichloroethene	38	U	200	38	ug/L			05/15/12 08:11	200
trans-1,2-Dichloroethene	18	U	200	18	ug/L			05/15/12 08:11	200
Methyl tert-butyl ether	24	U	200	24	ug/L			05/15/12 08:11	200
Acetone	200	U	1000	200	ug/L			05/15/12 08:11	200
Iodomethane	400	U	400	400	ug/L			05/15/12 08:11	200
Carbon disulfide	48	U	400	48	ug/L			05/15/12 08:11	200
Methylene Chloride	30	U	1000	30	ug/L			05/15/12 08:11	200
cis-1,2-Dichloroethene	12	U	200	12	ug/L			05/15/12 08:11	200
2-Butanone (MEK)	150	U	400	150	ug/L			05/15/12 08:11	200
Carbon tetrachloride	30	U	200	30	ug/L			05/15/12 08:11	200
1,2-Dichloroethane	28	U	200	28	ug/L			05/15/12 08:11	200
Trichloroethene	36	U	200	36	ug/L			05/15/12 08:11	200
1,1,1-Trichloroethane	30	U	200	30	ug/L			05/15/12 08:11	200
1,1-Dichloroethane	22	U	200	22	ug/L			05/15/12 08:11	200
1,2-Dichloropropane	32	U	200	32	ug/L			05/15/12 08:11	200
2,2-Dichloropropane	26	U	200	26	ug/L			05/15/12 08:11	200
Dibromomethane	100	U	200	100	ug/L			05/15/12 08:11	200
Chloroform	26	U	200	26	ug/L			05/15/12 08:11	200
Bromodichloromethane	32	U	200	32	ug/L			05/15/12 08:11	200
1,1-Dichloropropene	42	U	200	42	ug/L			05/15/12 08:11	200
cis-1,3-Dichloropropene	36	U	200	36	ug/L			05/15/12 08:11	200
4-Methyl-2-pentanone (MIBK)	90	U	400	90	ug/L			05/15/12 08:11	200
Toluene	4500		200	30	ug/L			05/15/12 08:11	200
trans-1,3-Dichloropropene	42	U	200	42	ug/L			05/15/12 08:11	200
1,1,2-Trichloroethane	56	U	200	56	ug/L			05/15/12 08:11	200
Tetrachloroethene	26	U	200	26	ug/L			05/15/12 08:11	200
1,3-Dichloropropane	44	U	200	44	ug/L			05/15/12 08:11	200
2-Hexanone	70	U	400	70	ug/L			05/15/12 08:11	200
Dibromochloromethane	30	U	200	30	ug/L			05/15/12 08:11	200
1,2-Dibromoethane	36	U	200	36	ug/L			05/15/12 08:11	200
Chlorobenzene	24	U	200	24	ug/L			05/15/12 08:11	200
1,1,1,2-Tetrachloroethane	36	U	200	36	ug/L			05/15/12 08:11	200
Ethylbenzene	960		200	22	ug/L			05/15/12 08:11	200
Xylenes, Total	4100		200	52	ug/L			05/15/12 08:11	200
Styrene	19 J		200	14	ug/L			05/15/12 08:11	200
Bromoform	38	U	200	38	ug/L			05/15/12 08:11	200
Isopropylbenzene	56 J		200	36	ug/L			05/15/12 08:11	200
Bromobenzene	38	U	200	38	ug/L			05/15/12 08:11	200
1,2,3-Trichloropropane	58	U	200	58	ug/L			05/15/12 08:11	200
1,1,2,2-Tetrachloroethane	44	U	200	44	ug/L			05/15/12 08:11	200
N-Propylbenzene	52 J		200	30	ug/L			05/15/12 08:11	200
2-Chlorotoluene	26	U	200	26	ug/L			05/15/12 08:11	200
4-Chlorotoluene	28	U	200	28	ug/L			05/15/12 08:11	200
1,3,5-Trimethylbenzene	190 J		200	20	ug/L			05/15/12 08:11	200
tert-Butylbenzene	16	U	200	16	ug/L			05/15/12 08:11	200
4-Isopropyltoluene	20	U	200	20	ug/L			05/15/12 08:11	200

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-18

Lab Sample ID: 600-54839-14

Date Collected: 05/09/12 17:50

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trimethylbenzene	480		200	28	ug/L			05/15/12 08:11	200
sec-Butylbenzene	24	U	200	24	ug/L			05/15/12 08:11	200
1,3-Dichlorobenzene	26	U	200	26	ug/L			05/15/12 08:11	200
1,4-Dichlorobenzene	22	U	200	22	ug/L			05/15/12 08:11	200
1,2-Dichlorobenzene	20	U	200	20	ug/L			05/15/12 08:11	200
n-Butylbenzene	32	U	200	32	ug/L			05/15/12 08:11	200
1,2-Dibromo-3-Chloropropane	160	U	200	160	ug/L			05/15/12 08:11	200
1,2,4-Trichlorobenzene	62	U	200	62	ug/L			05/15/12 08:11	200
Hexachlorobutadiene	34	U	200	34	ug/L			05/15/12 08:11	200
Naphthalene	160	J	200	64	ug/L			05/15/12 08:11	200

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		05/15/12 08:11	200
Dibromofluoromethane	79		62 - 130		05/15/12 08:11	200
Toluene-d8 (Surr)	86		70 - 130		05/15/12 08:11	200
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		05/15/12 08:11	200

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	22000		5000	400	ug/L			05/16/12 09:40	5000
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139					05/16/12 09:40	5000
Dibromofluoromethane	81		62 - 130					05/16/12 09:40	5000
Toluene-d8 (Surr)	87		70 - 130					05/16/12 09:40	5000
1,2-Dichloroethane-d4 (Surr)	81		50 - 134					05/16/12 09:40	5000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
Phenol	31		15	0.39	ug/L		05/14/12 16:21	05/18/12 04:12	10
Bis(2-chloroethyl)ether	1.5	U	15	1.5	ug/L		05/14/12 16:21	05/18/12 04:12	10
2-Chlorophenol	1.3	U	20	1.3	ug/L		05/14/12 16:21	05/18/12 04:12	10
Benzyl alcohol	1.7	U	54	1.7	ug/L		05/14/12 16:21	05/18/12 04:12	10
Bis(2-chloroisopropyl) ether	3.9	U	15	3.9	ug/L		05/14/12 16:21	05/18/12 04:12	10
3 & 4 Methylphenol	110		9.9	2.0	ug/L		05/14/12 16:21	05/18/12 04:12	10
N-Nitrosodi-n-propylamine	0.99	U	25	0.99	ug/L		05/14/12 16:21	05/18/12 04:12	10
Hexachloroethane	0.99	U	20	0.99	ug/L		05/14/12 16:21	05/18/12 04:12	10
Nitrobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 04:12	10
Isophorone	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 04:12	10
2-Nitrophenol	2.2	U	9.9	2.2	ug/L		05/14/12 16:21	05/18/12 04:12	10
Bis(2-chloroethoxy)methane	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 04:12	10
2,4-Dichlorophenol	1.5	U	25	1.5	ug/L		05/14/12 16:21	05/18/12 04:12	10
4-Chloroaniline	2.1	U	9.9	2.1	ug/L		05/14/12 16:21	05/18/12 04:12	10
4-Chloro-3-methylphenol	1.7	U	9.9	1.7	ug/L		05/14/12 16:21	05/18/12 04:12	10
2-Methylnaphthalene	64		15	0.69	ug/L		05/14/12 16:21	05/18/12 04:12	10
Hexachlorocyclopentadiene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 04:12	10
2,4,6-Trichlorophenol	1.8	U	20	1.8	ug/L		05/14/12 16:21	05/18/12 04:12	10
2,4,5-Trichlorophenol	2.5	U	20	2.5	ug/L		05/14/12 16:21	05/18/12 04:12	10
2-Chloronaphthalene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
2-Nitroaniline	1.9	U	25	1.9	ug/L		05/14/12 16:21	05/18/12 04:12	10
Dimethyl phthalate	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 04:12	10

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-18

Lab Sample ID: 600-54839-14

Date Collected: 05/09/12 17:50

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	0.59	U	9.9	0.59	ug/L		05/14/12 16:21	05/18/12 04:12	10
2,6-Dinitrotoluene	0.79	U	9.9	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
3-Nitroaniline	1.6	U	25	1.6	ug/L		05/14/12 16:21	05/18/12 04:12	10
Acenaphthene	0.79	U	9.9	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
2,4-Dinitrophenol	3.8	U	49	3.8	ug/L		05/14/12 16:21	05/18/12 04:12	10
4-Nitrophenol	5.5	U	25	5.5	ug/L		05/14/12 16:21	05/18/12 04:12	10
Dibenzofuran	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
2,4-Dinitrotoluene	1.3	U	15	1.3	ug/L		05/14/12 16:21	05/18/12 04:12	10
Diethyl phthalate	15	U	25	15	ug/L		05/14/12 16:21	05/18/12 04:12	10
4-Chlorophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 04:12	10
Fluorene	0.69	U	15	0.69	ug/L		05/14/12 16:21	05/18/12 04:12	10
4-Nitroaniline	2.5	U	25	2.5	ug/L		05/14/12 16:21	05/18/12 04:12	10
4,6-Dinitro-2-methylphenol	8.2	U	25	8.2	ug/L		05/14/12 16:21	05/18/12 04:12	10
4-Bromophenyl phenyl ether	0.99	U	15	0.99	ug/L		05/14/12 16:21	05/18/12 04:12	10
Hexachlorobenzene	1.1	U	15	1.1	ug/L		05/14/12 16:21	05/18/12 04:12	10
Pentachlorophenol	6.0	U	25	6.0	ug/L		05/14/12 16:21	05/18/12 04:12	10
Phenanthrene	0.59	U	15	0.59	ug/L		05/14/12 16:21	05/18/12 04:12	10
Anthracene	0.49	U	9.9	0.49	ug/L		05/14/12 16:21	05/18/12 04:12	10
Di-n-butyl phthalate	1.1	U	25	1.1	ug/L		05/14/12 16:21	05/18/12 04:12	10
Fluoranthene	0.69	U	25	0.69	ug/L		05/14/12 16:21	05/18/12 04:12	10
Pyrene	1.1	U	20	1.1	ug/L		05/14/12 16:21	05/18/12 04:12	10
Butyl benzyl phthalate	1.2	U	25	1.2	ug/L		05/14/12 16:21	05/18/12 04:12	10
3,3'-Dichlorobenzidine	1.8	U	99	1.8	ug/L		05/14/12 16:21	05/18/12 04:12	10
Benzo[a]anthracene	0.79	U	20	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
Bis(2-ethylhexyl) phthalate	3.6	U	25	3.6	ug/L		05/14/12 16:21	05/18/12 04:12	10
Chrysene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
Di-n-octyl phthalate	1.6	U	49	1.6	ug/L		05/14/12 16:21	05/18/12 04:12	10
Benzo[b]fluoranthene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 04:12	10
Benzo[k]fluoranthene	0.89	U	20	0.89	ug/L		05/14/12 16:21	05/18/12 04:12	10
Benzo[a]pyrene	0.79	U	15	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
Indeno[1,2,3-cd]pyrene	0.69	U	20	0.69	ug/L		05/14/12 16:21	05/18/12 04:12	10
Dibenz(a,h)anthracene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10
Benzo[g,h,i]perylene	0.79	U	25	0.79	ug/L		05/14/12 16:21	05/18/12 04:12	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	11		10 - 94	05/14/12 16:21	05/18/12 04:12	10
2,4,6-Tribromophenol	90		10 - 123	05/14/12 16:21	05/18/12 04:12	10
2-Fluorobiphenyl	101		43 - 116	05/14/12 16:21	05/18/12 04:12	10
2-Fluorophenol	48		10 - 100	05/14/12 16:21	05/18/12 04:12	10
Nitrobenzene-d5	136	X	35 - 114	05/14/12 16:21	05/18/12 04:12	10
Terphenyl-d14	87		33 - 141	05/14/12 16:21	05/18/12 04:12	10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	660		120	15	ug/L		05/14/12 16:21	05/23/12 13:11	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	05/14/12 16:21	05/23/12 13:11	50
2,4,6-Tribromophenol	0	X	10 - 123	05/14/12 16:21	05/23/12 13:11	50
2-Fluorobiphenyl	0	X	43 - 116	05/14/12 16:21	05/23/12 13:11	50
2-Fluorophenol	0	X	10 - 100	05/14/12 16:21	05/23/12 13:11	50
Nitrobenzene-d5	0	X	35 - 114	05/14/12 16:21	05/23/12 13:11	50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-18

Lab Sample ID: 600-54839-14

Date Collected: 05/09/12 17:50

Matrix: Water

Date Received: 05/11/12 10:10

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	33 - 141	05/14/12 16:21	05/23/12 13:11	50

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	19		2.0	0.81	mg/L		05/15/12 14:14	05/16/12 10:48	1
>C12-C28	2.7		2.0	0.94	mg/L		05/15/12 14:14	05/16/12 10:48	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/15/12 14:14	05/16/12 10:48	1
C6-C35	22		2.0	1.5	mg/L		05/15/12 14:14	05/16/12 10:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	102		70 - 130				05/15/12 14:14	05/16/12 10:48	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.15		0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 19:20	1
Aluminum	0.041	J	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 19:20	1
Barium	0.40		0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 19:20	1
Cobalt	0.0029	J	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 19:20	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 19:20	1
Copper	0.0024	J B	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 19:20	1
Manganese	0.93		0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 19:20	1
Nickel	0.0047	J	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 19:20	1
Lead	0.0033	J	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 19:20	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 19:20	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 19:20	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 19:20	1
Zinc	0.0034	J B	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 19:20	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 16:20	1

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.18	ug/L	8260B
1,1,1-Trichloroethane	1.0	0.15	ug/L	8260B
1,1,2,2-Tetrachloroethane	1.0	0.22	ug/L	8260B
1,1,2-Trichloroethane	1.0	0.28	ug/L	8260B
1,1-Dichloroethane	1.0	0.11	ug/L	8260B
1,1-Dichloroethene	1.0	0.19	ug/L	8260B
1,1-Dichloropropene	1.0	0.21	ug/L	8260B
1,2,3-Trichloropropane	1.0	0.29	ug/L	8260B
1,2,4-Trichlorobenzene	1.0	0.31	ug/L	8260B
1,2,4-Trimethylbenzene	1.0	0.14	ug/L	8260B
1,2-Dibromo-3-Chloropropane	1.0	0.81	ug/L	8260B
1,2-Dibromoethane	1.0	0.18	ug/L	8260B
1,2-Dichlorobenzene	1.0	0.10	ug/L	8260B
1,2-Dichloroethane	1.0	0.14	ug/L	8260B
1,2-Dichloropropane	1.0	0.16	ug/L	8260B
1,3,5-Trimethylbenzene	1.0	0.10	ug/L	8260B
1,3-Dichlorobenzene	1.0	0.13	ug/L	8260B
1,3-Dichloropropane	1.0	0.22	ug/L	8260B
1,4-Dichlorobenzene	1.0	0.11	ug/L	8260B
2,2-Dichloropropane	1.0	0.13	ug/L	8260B
2-Butanone (MEK)	2.0	0.76	ug/L	8260B
2-Chlorotoluene	1.0	0.13	ug/L	8260B
2-Hexanone	2.0	0.35	ug/L	8260B
4-Chlorotoluene	1.0	0.14	ug/L	8260B
4-Isopropyltoluene	1.0	0.10	ug/L	8260B
4-Methyl-2-pentanone (MIBK)	2.0	0.45	ug/L	8260B
Acetone	5.0	0.99	ug/L	8260B
Benzene	1.0	0.080	ug/L	8260B
Bromobenzene	1.0	0.19	ug/L	8260B
Bromodichloromethane	1.0	0.16	ug/L	8260B
Bromoform	1.0	0.19	ug/L	8260B
Bromomethane	2.0	0.25	ug/L	8260B
Carbon disulfide	2.0	0.24	ug/L	8260B
Carbon tetrachloride	1.0	0.15	ug/L	8260B
Chlorobenzene	1.0	0.12	ug/L	8260B
Chloroethane	2.0	0.080	ug/L	8260B
Chloroform	1.0	0.13	ug/L	8260B
Chloromethane	2.0	0.18	ug/L	8260B
cis-1,2-Dichloroethene	1.0	0.060	ug/L	8260B
cis-1,3-Dichloropropene	1.0	0.18	ug/L	8260B
Dibromochloromethane	1.0	0.15	ug/L	8260B
Dibromomethane	1.0	0.52	ug/L	8260B
Dichlorodifluoromethane	1.0	0.12	ug/L	8260B
Ethylbenzene	1.0	0.11	ug/L	8260B
Hexachlorobutadiene	1.0	0.17	ug/L	8260B
Iodomethane	2.0	2.0	ug/L	8260B
Isopropylbenzene	1.0	0.18	ug/L	8260B
Methyl tert-butyl ether	1.0	0.12	ug/L	8260B
Methylene Chloride	5.0	0.15	ug/L	8260B
Naphthalene	1.0	0.32	ug/L	8260B
n-Butylbenzene	1.0	0.16	ug/L	8260B
N-Propylbenzene	1.0	0.15	ug/L	8260B
sec-Butylbenzene	1.0	0.12	ug/L	8260B

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	MQL	MDL	Units	Method
Styrene	1.0	0.070	ug/L	8260B
tert-Butylbenzene	1.0	0.080	ug/L	8260B
Tetrachloroethene	1.0	0.13	ug/L	8260B
Toluene	1.0	0.15	ug/L	8260B
trans-1,2-Dichloroethene	1.0	0.090	ug/L	8260B
trans-1,3-Dichloropropene	1.0	0.21	ug/L	8260B
Trichloroethene	1.0	0.18	ug/L	8260B
Trichlorofluoromethane	1.0	0.080	ug/L	8260B
Vinyl chloride	2.0	0.11	ug/L	8260B
Xylenes, Total	1.0	0.26	ug/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
2,4,5-Trichlorophenol	2.0	0.25	ug/L	8270C LL
2,4,6-Trichlorophenol	2.0	0.18	ug/L	8270C LL
2,4-Dichlorophenol	2.5	0.15	ug/L	8270C LL
2,4-Dimethylphenol	2.5	0.31	ug/L	8270C LL
2,4-Dinitrophenol	5.0	0.39	ug/L	8270C LL
2,4-Dinitrotoluene	1.5	0.13	ug/L	8270C LL
2,6-Dinitrotoluene	1.0	0.080	ug/L	8270C LL
2-Chloronaphthalene	1.5	0.080	ug/L	8270C LL
2-Chlorophenol	2.0	0.13	ug/L	8270C LL
2-Methylnaphthalene	1.5	0.070	ug/L	8270C LL
2-Nitroaniline	2.5	0.19	ug/L	8270C LL
2-Nitrophenol	1.0	0.22	ug/L	8270C LL
3 & 4 Methylphenol	1.0	0.20	ug/L	8270C LL
3,3'-Dichlorobenzidine	10	0.18	ug/L	8270C LL
3-Nitroaniline	2.5	0.16	ug/L	8270C LL
4,6-Dinitro-2-methylphenol	2.5	0.83	ug/L	8270C LL
4-Bromophenyl phenyl ether	1.5	0.10	ug/L	8270C LL
4-Chloro-3-methylphenol	1.0	0.17	ug/L	8270C LL
4-Chloroaniline	1.0	0.21	ug/L	8270C LL
4-Chlorophenyl phenyl ether	1.5	0.10	ug/L	8270C LL
4-Nitroaniline	2.5	0.25	ug/L	8270C LL
4-Nitrophenol	2.5	0.56	ug/L	8270C LL
Acenaphthene	1.0	0.080	ug/L	8270C LL
Acenaphthylene	1.0	0.060	ug/L	8270C LL
Aniline	1.5	0.080	ug/L	8270C LL
Anthracene	1.0	0.050	ug/L	8270C LL
Benzo[a]anthracene	2.0	0.080	ug/L	8270C LL
Benzo[a]pyrene	1.5	0.080	ug/L	8270C LL
Benzo[b]fluoranthene	2.0	0.070	ug/L	8270C LL
Benzo[g,h,i]perylene	2.5	0.080	ug/L	8270C LL
Benzo[k]fluoranthene	2.0	0.090	ug/L	8270C LL
Benzyl alcohol	5.5	0.17	ug/L	8270C LL
Bis(2-chloroethoxy)methane	1.5	0.13	ug/L	8270C LL
Bis(2-chloroethyl)ether	1.5	0.15	ug/L	8270C LL
Bis(2-chloroisopropyl) ether	1.5	0.40	ug/L	8270C LL
Bis(2-ethylhexyl) phthalate	2.5	0.37	ug/L	8270C LL
Butyl benzyl phthalate	2.5	0.12	ug/L	8270C LL
Chrysene	1.5	0.080	ug/L	8270C LL
Dibenz(a,h)anthracene	2.5	0.080	ug/L	8270C LL

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	MQL	MDL	Units	Method
Dibenzofuran	1.5	0.080	ug/L	8270C LL
Diethyl phthalate	2.5	1.5	ug/L	8270C LL
Dimethyl phthalate	2.5	0.070	ug/L	8270C LL
Di-n-butyl phthalate	2.5	0.11	ug/L	8270C LL
Di-n-octyl phthalate	5.0	0.16	ug/L	8270C LL
Fluoranthene	2.5	0.070	ug/L	8270C LL
Fluorene	1.5	0.070	ug/L	8270C LL
Hexachlorobenzene	1.5	0.11	ug/L	8270C LL
Hexachlorocyclopentadiene	1.5	0.13	ug/L	8270C LL
Hexachloroethane	2.0	0.10	ug/L	8270C LL
Indeno[1,2,3-cd]pyrene	2.0	0.070	ug/L	8270C LL
Isophorone	1.5	0.11	ug/L	8270C LL
Nitrobenzene	1.5	0.11	ug/L	8270C LL
N-Nitrosodi-n-propylamine	2.5	0.10	ug/L	8270C LL
Pentachlorophenol	2.5	0.61	ug/L	8270C LL
Phenanthrene	1.5	0.060	ug/L	8270C LL
Phenol	1.5	0.040	ug/L	8270C LL
Pyrene	2.0	0.11	ug/L	8270C LL

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	MQL	MDL	Units	Method
>C12-C28	2.0	0.96	mg/L	TX 1005
>C28-C35	2.0	0.96	mg/L	TX 1005
C6-C12	2.0	0.83	mg/L	TX 1005
C6-C35	2.0	1.6	mg/L	TX 1005

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Aluminum	0.50	0.022	mg/L	6010B
Arsenic	0.010	0.0033	mg/L	6010B
Barium	0.020	0.0022	mg/L	6010B
Chromium	0.010	0.0016	mg/L	6010B
Cobalt	0.010	0.00063	mg/L	6010B
Copper	0.010	0.0015	mg/L	6010B
Lead	0.010	0.0029	mg/L	6010B
Manganese	0.010	0.00084	mg/L	6010B
Nickel	0.010	0.0018	mg/L	6010B
Selenium	0.040	0.0042	mg/L	6010B
Thallium	0.030	0.0078	mg/L	6010B
Vanadium	0.010	0.0017	mg/L	6010B
Zinc	0.030	0.0022	mg/L	6010B

Method: 7470A - Mercury (CVAA)

Analyte	MQL	MDL	Units	Method
Mercury	0.00020	0.000026	mg/L	7470A

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-54839-1	MW-16	101	93	86	91
600-54839-1 - DL	MW-16	100	78	84	78
600-54839-2	MW-14	98	78	90	77
600-54839-2 - DL	MW-14	98	79	87	79
600-54839-3	MW-19	94	81	86	79
600-54839-3 - DL	MW-19	93	81	86	79
600-54839-4	MW-17	95	79	87	78
600-54839-4 - DL	MW-17	98	81	86	79
600-54839-5	MW-15	98	78	87	80
600-54839-5 - DL	MW-15	98	75	87	76
600-54839-5 - DL	MW-15	100	78	85	78
600-54839-6	MW-12	95	81	87	80
600-54839-6 - DL	MW-12	95	82	85	81
600-54839-7	MW-3	94	78	89	76
600-54839-7 - DL	MW-3	100	81	87	76
600-54839-8 - DL	MW-2	97	80	88	80
600-54839-8	MW-2	100	83	84	78
600-54839-9	MW-4	96	78	87	77
600-54839-10	MW-20	96	80	87	77
600-54839-11	MW-9	97	78	87	77
600-54839-12	MW-21	98	83	91	80
600-54839-13	MW-22	97	82	85	80
600-54839-14	MW-18	94	79	86	79
600-54839-14 - DL	MW-18	102	81	87	81
LCS 600-79199/3	Lab Control Sample	101	91	89	82
LCS 600-79279/3	Lab Control Sample	98	85	86	80
LCS 600-79300/5	Lab Control Sample	99	82	87	77
LCS 600-79383/3	Lab Control Sample	100	83	88	79
LCS 600-79394/3	Lab Control Sample	100	85	85	80
MB 600-79199/4	Method Blank	99	88	90	85
MB 600-79279/4	Method Blank	99	78	87	75
MB 600-79300/7	Method Blank	103	81	86	80
MB 600-79383/4	Method Blank	102	80	87	78
MB 600-79394/4	Method Blank	100	82	84	80

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-54839-1	MW-16	34	89	89	38	91	63
600-54839-2	MW-14	0 X	0 X	0 X	0 X	0 X	0 X
600-54839-3	MW-19	24	80	74	34	69	69
600-54839-4	MW-17	9 X	72	92	43	71	82

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-54839-5	MW-15	35	111	96	48	100	97
600-54839-6	MW-12	23	41	67	36	91	62
600-54839-7	MW-3	0 X	0 X	0 X	0 X	0 X	0 X
600-54839-8	MW-2	27	62	87	39	90	87
600-54839-9	MW-4	22	63	61	30	62	55
600-54839-10	MW-20	18	62	64	29	62	62
600-54839-11	MW-9	18	66	68	29	60	69
600-54839-12	MW-21	20	77	75	34	67	76
600-54839-13	MW-22	18	62	65	31	60	63
600-54839-14	MW-18	11	90	101	48	136 X	87
600-54839-14 - DL	MW-18	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-79230/2-A	Lab Control Sample	75	77	77	69	69	74
MB 600-79230/1-A	Method Blank	70	64	79	66	75	73

Surrogate Legend

PHL = Phenol-d6
TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
TPH = Terphenyl-d14

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		OTPH (70-130)					
600-54839-1	MW-16	92					
600-54839-2	MW-14	74					
600-54839-3	MW-19	92					
600-54839-4	MW-17	89					
600-54839-5	MW-15	102					
600-54839-6	MW-12	90					
600-54839-7	MW-3	168 X					
600-54839-8	MW-2	97					
600-54839-9	MW-4	89					
600-54839-10	MW-20	91					
600-54839-11	MW-9	93					
600-54839-12	MW-21	88					
600-54839-13	MW-22	92					
600-54839-14	MW-18	102					
LCS 600-79306/2-A	Lab Control Sample	117					
LCSD 600-79306/3-A	Lab Control Sample Dup	120					
MB 600-79306/1-A	Method Blank	97					

Surrogate Legend

OTPH = o-Terphenyl

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-79199/4

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/14/12 10:55	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/14/12 10:55	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/14/12 10:55	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/14/12 10:55	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/14/12 10:55	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/14/12 10:55	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/14/12 10:55	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
Acetone	0.99	U	5.0	0.99	ug/L			05/14/12 10:55	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/14/12 10:55	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/14/12 10:55	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/14/12 10:55	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/14/12 10:55	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/14/12 10:55	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
Benzene	0.080	U	1.0	0.080	ug/L			05/14/12 10:55	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/14/12 10:55	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/14/12 10:55	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/14/12 10:55	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/14/12 10:55	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/14/12 10:55	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/14/12 10:55	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/14/12 10:55	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/14/12 10:55	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/14/12 10:55	1
Toluene	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/14/12 10:55	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/14/12 10:55	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/14/12 10:55	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/14/12 10:55	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/14/12 10:55	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/14/12 10:55	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/14/12 10:55	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/14/12 10:55	1
Styrene	0.070	U	1.0	0.070	ug/L			05/14/12 10:55	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/14/12 10:55	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/14/12 10:55	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/14/12 10:55	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/14/12 10:55	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/14/12 10:55	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/14/12 10:55	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79199/4

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/14/12 10:55	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/14/12 10:55	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/14/12 10:55	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/14/12 10:55	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/14/12 10:55	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/14/12 10:55	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/14/12 10:55	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/14/12 10:55	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/14/12 10:55	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/14/12 10:55	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/14/12 10:55	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/14/12 10:55	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139		05/14/12 10:55	1
Dibromofluoromethane	88		62 - 130		05/14/12 10:55	1
Toluene-d8 (Surr)	90		70 - 130		05/14/12 10:55	1
1,2-Dichloroethane-d4 (Surr)	85		50 - 134		05/14/12 10:55	1

Lab Sample ID: LCS 600-79199/3

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	38.0	*	ug/L		380	12 - 136
Chloromethane	10.0	15.9	*	ug/L		159	32 - 151
Vinyl chloride	10.0	14.0		ug/L		140	47 - 146
Bromomethane	10.0	13.7		ug/L		137	52 - 146
Chloroethane	10.0	13.0		ug/L		130	56 - 144
Trichlorofluoromethane	10.0	14.2		ug/L		142	55 - 142
1,1-Dichloroethene	10.0	11.5		ug/L		115	59 - 145
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	8.67		ug/L		87	63 - 142
Acetone	20.0	17.9		ug/L		89	28 - 152
Iodomethane	10.0	9.38		ug/L		94	17 - 197
Carbon disulfide	10.0	10.9		ug/L		109	32 - 177
Methylene Chloride	10.0	9.45		ug/L		95	62 - 134
cis-1,2-Dichloroethene	10.0	9.05		ug/L		91	69 - 129
2-Butanone (MEK)	20.0	15.3		ug/L		77	59 - 133
Carbon tetrachloride	10.0	12.3		ug/L		123	59 - 147
Benzene	10.0	9.59		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.81		ug/L		98	66 - 140
Trichloroethene	10.0	9.45		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	11.3		ug/L		113	65 - 142
1,1-Dichloroethane	10.0	10.0		ug/L		100	66 - 126
1,2-Dichloropropane	10.0	9.81		ug/L		98	72 - 125
2,2-Dichloropropane	10.0	13.0		ug/L		130	43 - 169

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79199/3

Matrix: Water

Analysis Batch: 79199

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	10.0	10.2		ug/L		102	68 - 134
Chloroform	10.0	9.71		ug/L		97	69 - 128
Bromodichloromethane	10.0	10.6		ug/L		106	73 - 130
1,1-Dichloropropene	10.0	10.0		ug/L		100	59 - 134
cis-1,3-Dichloropropene	10.0	11.3		ug/L		113	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	18.5		ug/L		92	56 - 142
Toluene	10.0	9.63		ug/L		96	67 - 130
trans-1,3-Dichloropropene	10.0	12.3		ug/L		123	63 - 133
1,1,2-Trichloroethane	10.0	9.47		ug/L		95	68 - 130
Tetrachloroethene	10.0	9.65		ug/L		96	61 - 142
1,3-Dichloropropane	10.0	9.06		ug/L		91	62 - 132
2-Hexanone	20.0	17.8		ug/L		89	51 - 130
Dibromochloromethane	10.0	11.3		ug/L		113	58 - 132
1,2-Dibromoethane	10.0	9.83		ug/L		98	68 - 128
Chlorobenzene	10.0	9.35		ug/L		93	60 - 136
1,1,1,2-Tetrachloroethane	10.0	10.9		ug/L		109	57 - 136
Ethylbenzene	10.0	9.50		ug/L		95	68 - 128
Xylenes, Total	30.0	28.7		ug/L		96	68 - 132
Styrene	10.0	9.84		ug/L		98	68 - 133
Bromoform	10.0	12.0		ug/L		120	39 - 149
Isopropylbenzene	10.0	11.1		ug/L		111	79 - 146
Bromobenzene	10.0	9.18		ug/L		92	61 - 134
1,2,3-Trichloropropane	10.0	8.67		ug/L		87	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.91		ug/L		99	68 - 134
N-Propylbenzene	10.0	9.89		ug/L		99	61 - 137
2-Chlorotoluene	10.0	9.27		ug/L		93	58 - 135
4-Chlorotoluene	10.0	9.73		ug/L		97	64 - 134
1,3,5-Trimethylbenzene	10.0	9.52		ug/L		95	63 - 132
tert-Butylbenzene	10.0	10.7		ug/L		107	67 - 148
4-Isopropyltoluene	10.0	10.5		ug/L		105	63 - 138
1,2,4-Trimethylbenzene	10.0	9.53		ug/L		95	63 - 131
sec-Butylbenzene	10.0	9.91		ug/L		99	61 - 134
1,3-Dichlorobenzene	10.0	9.46		ug/L		95	71 - 132
1,4-Dichlorobenzene	10.0	9.70		ug/L		97	72 - 131
1,2-Dichlorobenzene	10.0	9.22		ug/L		92	71 - 133
n-Butylbenzene	10.0	10.4		ug/L		104	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	16.5	*	ug/L		165	43 - 141
1,2,4-Trichlorobenzene	10.0	9.65		ug/L		96	55 - 151
Hexachlorobutadiene	10.0	9.96		ug/L		100	53 - 140
Naphthalene	10.0	10.1		ug/L		101	19 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 139
Dibromofluoromethane	91		62 - 130
Toluene-d8 (Surr)	89		70 - 130
1,2-Dichloroethane-d4 (Surr)	82		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79279/4

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/15/12 00:36	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 00:36	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 00:36	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 00:36	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 00:36	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 00:36	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 00:36	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 00:36	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 00:36	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 00:36	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 00:36	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 00:36	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 00:36	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 00:36	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 00:36	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 00:36	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 00:36	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 00:36	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 00:36	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 00:36	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 00:36	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 00:36	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 00:36	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 00:36	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 00:36	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 00:36	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 00:36	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 00:36	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 00:36	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 00:36	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 00:36	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 00:36	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 00:36	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 00:36	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 00:36	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79279/4

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 00:36	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 00:36	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 00:36	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 00:36	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 00:36	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 00:36	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 00:36	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 00:36	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 00:36	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 00:36	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 00:36	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 00:36	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 00:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139		05/15/12 00:36	1
Dibromofluoromethane	78		62 - 130		05/15/12 00:36	1
Toluene-d8 (Surr)	87		70 - 130		05/15/12 00:36	1
1,2-Dichloroethane-d4 (Surr)	75		50 - 134		05/15/12 00:36	1

Lab Sample ID: LCS 600-79279/3

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	33.3	*	ug/L		333	12 - 136
Chloromethane	10.0	14.1		ug/L		141	32 - 151
Vinyl chloride	10.0	11.7		ug/L		117	47 - 146
Bromomethane	10.0	12.7		ug/L		127	52 - 146
Chloroethane	10.0	11.6		ug/L		116	56 - 144
Trichlorofluoromethane	10.0	12.9		ug/L		129	55 - 142
1,1-Dichloroethene	10.0	10.8		ug/L		108	59 - 145
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	8.52		ug/L		85	63 - 142
Acetone	20.0	16.5		ug/L		83	28 - 152
Iodomethane	10.0	9.16		ug/L		92	17 - 197
Carbon disulfide	10.0	10.4		ug/L		104	32 - 177
Methylene Chloride	10.0	9.32		ug/L		93	62 - 134
cis-1,2-Dichloroethene	10.0	8.80		ug/L		88	69 - 129
2-Butanone (MEK)	20.0	15.0		ug/L		75	59 - 133
Carbon tetrachloride	10.0	10.9		ug/L		109	59 - 147
Benzene	10.0	9.58		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.77		ug/L		98	66 - 140
Trichloroethene	10.0	9.45		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.6		ug/L		106	65 - 142
1,1-Dichloroethane	10.0	9.75		ug/L		98	66 - 126
1,2-Dichloropropane	10.0	9.59		ug/L		96	72 - 125
2,2-Dichloropropane	10.0	10.1		ug/L		101	43 - 169

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79279/3

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	10.0	9.61		ug/L		96	68 - 134
Chloroform	10.0	9.54		ug/L		95	69 - 128
Bromodichloromethane	10.0	9.63		ug/L		96	73 - 130
1,1-Dichloropropene	10.0	10.1		ug/L		101	59 - 134
cis-1,3-Dichloropropene	10.0	9.73		ug/L		97	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	18.2		ug/L		91	56 - 142
Toluene	10.0	9.43		ug/L		94	67 - 130
trans-1,3-Dichloropropene	10.0	10.7		ug/L		107	63 - 133
1,1,2-Trichloroethane	10.0	9.42		ug/L		94	68 - 130
Tetrachloroethene	10.0	13.0		ug/L		130	61 - 142
1,3-Dichloropropane	10.0	9.10		ug/L		91	62 - 132
2-Hexanone	20.0	18.1		ug/L		91	51 - 130
Dibromochloromethane	10.0	9.71		ug/L		97	58 - 132
1,2-Dibromoethane	10.0	9.66		ug/L		97	68 - 128
Chlorobenzene	10.0	9.29		ug/L		93	60 - 136
1,1,1,2-Tetrachloroethane	10.0	9.58		ug/L		96	57 - 136
Ethylbenzene	10.0	9.33		ug/L		93	68 - 128
Xylenes, Total	30.0	28.4		ug/L		95	68 - 132
Styrene	10.0	9.86		ug/L		99	68 - 133
Bromoform	10.0	9.04		ug/L		90	39 - 149
Isopropylbenzene	10.0	11.0		ug/L		110	79 - 146
Bromobenzene	10.0	9.15		ug/L		91	61 - 134
1,2,3-Trichloropropane	10.0	9.13		ug/L		91	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.58		ug/L		96	68 - 134
N-Propylbenzene	10.0	9.67		ug/L		97	61 - 137
2-Chlorotoluene	10.0	9.50		ug/L		95	58 - 135
4-Chlorotoluene	10.0	9.59		ug/L		96	64 - 134
1,3,5-Trimethylbenzene	10.0	9.48		ug/L		95	63 - 132
tert-Butylbenzene	10.0	10.1		ug/L		101	67 - 148
4-Isopropyltoluene	10.0	10.4		ug/L		104	63 - 138
1,2,4-Trimethylbenzene	10.0	9.45		ug/L		94	63 - 131
sec-Butylbenzene	10.0	9.92		ug/L		99	61 - 134
1,3-Dichlorobenzene	10.0	9.39		ug/L		94	71 - 132
1,4-Dichlorobenzene	10.0	9.41		ug/L		94	72 - 131
1,2-Dichlorobenzene	10.0	9.17		ug/L		92	71 - 133
n-Butylbenzene	10.0	10.0		ug/L		100	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	13.4		ug/L		134	43 - 141
1,2,4-Trichlorobenzene	10.0	10.3		ug/L		103	55 - 151
Hexachlorobutadiene	10.0	10.2		ug/L		102	53 - 140
Naphthalene	10.0	10.6		ug/L		106	19 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	98		67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	80		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79300/7

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 12:13	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 12:13	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 12:13	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 12:13	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 12:13	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 12:13	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 12:13	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 12:13	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 12:13	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 12:13	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 12:13	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 12:13	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 12:13	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 12:13	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 12:13	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 12:13	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 12:13	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 12:13	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 12:13	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 12:13	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 12:13	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 12:13	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 12:13	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 12:13	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 12:13	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 12:13	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 12:13	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 12:13	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 12:13	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 12:13	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 12:13	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 12:13	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79300/7

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 12:13	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 12:13	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 12:13	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 12:13	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 12:13	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 12:13	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 12:13	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 12:13	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 12:13	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 12:13	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 12:13	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 12:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139		05/15/12 12:13	1
Dibromofluoromethane	81		62 - 130		05/15/12 12:13	1
Toluene-d8 (Surr)	86		70 - 130		05/15/12 12:13	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		05/15/12 12:13	1

Lab Sample ID: LCS 600-79300/5

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	34.5	*	ug/L		345	12 - 136
Chloromethane	10.0	15.1		ug/L		151	32 - 151
Vinyl chloride	10.0	13.0		ug/L		130	47 - 146
Bromomethane	10.0	13.0		ug/L		130	52 - 146
Chloroethane	10.0	12.5		ug/L		125	56 - 144
Trichlorofluoromethane	10.0	13.5		ug/L		135	55 - 142
1,1-Dichloroethene	10.0	11.2		ug/L		112	59 - 145
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	70 - 132
Methyl tert-butyl ether	10.0	8.87		ug/L		89	63 - 142
Acetone	20.0	17.6		ug/L		88	28 - 152
Iodomethane	10.0	9.68		ug/L		97	17 - 197
Carbon disulfide	10.0	10.7		ug/L		107	32 - 177
Methylene Chloride	10.0	10.1		ug/L		101	62 - 134
cis-1,2-Dichloroethene	10.0	9.32		ug/L		93	69 - 129
2-Butanone (MEK)	20.0	16.8		ug/L		84	59 - 133
Carbon tetrachloride	10.0	11.7		ug/L		117	59 - 147
Benzene	10.0	10.2		ug/L		102	69 - 131
1,2-Dichloroethane	10.0	10.3		ug/L		103	66 - 140
Trichloroethene	10.0	9.97		ug/L		100	68 - 130
1,1,1-Trichloroethane	10.0	11.1		ug/L		111	65 - 142
1,1-Dichloroethane	10.0	10.6		ug/L		106	66 - 126
1,2-Dichloropropane	10.0	10.3		ug/L		103	72 - 125
2,2-Dichloropropane	10.0	12.3		ug/L		123	43 - 169

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79300/5

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	10.0	10.4		ug/L		104	68 - 134
Chloroform	10.0	10.3		ug/L		103	69 - 128
Bromodichloromethane	10.0	9.81		ug/L		98	73 - 130
1,1-Dichloropropene	10.0	10.5		ug/L		105	59 - 134
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	19.8		ug/L		99	56 - 142
Toluene	10.0	9.91		ug/L		99	67 - 130
trans-1,3-Dichloropropene	10.0	11.5		ug/L		115	63 - 133
1,1,2-Trichloroethane	10.0	9.99		ug/L		100	68 - 130
Tetrachloroethene	10.0	10.1		ug/L		101	61 - 142
1,3-Dichloropropane	10.0	9.80		ug/L		98	62 - 132
2-Hexanone	20.0	19.3		ug/L		97	51 - 130
Dibromochloromethane	10.0	10.2		ug/L		102	58 - 132
1,2-Dibromoethane	10.0	9.84		ug/L		98	68 - 128
Chlorobenzene	10.0	9.70		ug/L		97	60 - 136
1,1,1,2-Tetrachloroethane	10.0	9.78		ug/L		98	57 - 136
Ethylbenzene	10.0	9.87		ug/L		99	68 - 128
Xylenes, Total	30.0	30.1		ug/L		100	68 - 132
Styrene	10.0	10.2		ug/L		102	68 - 133
Bromoform	10.0	10.2		ug/L		102	39 - 149
Isopropylbenzene	10.0	11.5		ug/L		115	79 - 146
Bromobenzene	10.0	9.38		ug/L		94	61 - 134
1,2,3-Trichloropropane	10.0	9.78		ug/L		98	52 - 157
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	68 - 134
N-Propylbenzene	10.0	10.1		ug/L		101	61 - 137
2-Chlorotoluene	10.0	9.77		ug/L		98	58 - 135
4-Chlorotoluene	10.0	10.1		ug/L		101	64 - 134
1,3,5-Trimethylbenzene	10.0	9.73		ug/L		97	63 - 132
tert-Butylbenzene	10.0	10.7		ug/L		107	67 - 148
4-Isopropyltoluene	10.0	10.8		ug/L		108	63 - 138
1,2,4-Trimethylbenzene	10.0	9.87		ug/L		99	63 - 131
sec-Butylbenzene	10.0	10.2		ug/L		102	61 - 134
1,3-Dichlorobenzene	10.0	9.67		ug/L		97	71 - 132
1,4-Dichlorobenzene	10.0	9.82		ug/L		98	72 - 131
1,2-Dichlorobenzene	10.0	9.56		ug/L		96	71 - 133
n-Butylbenzene	10.0	10.5		ug/L		105	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	11.6		ug/L		116	43 - 141
1,2,4-Trichlorobenzene	10.0	9.26		ug/L		93	55 - 151
Hexachlorobutadiene	10.0	9.10		ug/L		91	53 - 140
Naphthalene	10.0	9.04		ug/L		90	19 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 139
Dibromofluoromethane	82		62 - 130
Toluene-d8 (Surr)	87		70 - 130
1,2-Dichloroethane-d4 (Surr)	77		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79383/4

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/16/12 00:54	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 00:54	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 00:54	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 00:54	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/16/12 00:54	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 00:54	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/16/12 00:54	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 00:54	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/16/12 00:54	1
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 00:54	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/16/12 00:54	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 00:54	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/16/12 00:54	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 00:54	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 00:54	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
Benzene	0.080	U	1.0	0.080	ug/L			05/16/12 00:54	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 00:54	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 00:54	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 00:54	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/16/12 00:54	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 00:54	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/16/12 00:54	1
Toluene	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 00:54	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/16/12 00:54	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/16/12 00:54	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/16/12 00:54	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/16/12 00:54	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/16/12 00:54	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/16/12 00:54	1
Styrene	0.070	U	1.0	0.070	ug/L			05/16/12 00:54	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/16/12 00:54	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/16/12 00:54	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/16/12 00:54	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/16/12 00:54	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79383/4

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 00:54	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 00:54	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 00:54	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 00:54	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 00:54	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 00:54	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 00:54	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/16/12 00:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139		05/16/12 00:54	1
Dibromofluoromethane	80		62 - 130		05/16/12 00:54	1
Toluene-d8 (Surr)	87		70 - 130		05/16/12 00:54	1
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		05/16/12 00:54	1

Lab Sample ID: LCS 600-79383/3

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	30.0	*	ug/L		300	12 - 136
Chloromethane	10.0	13.5		ug/L		135	32 - 151
Vinyl chloride	10.0	11.1		ug/L		111	47 - 146
Bromomethane	10.0	11.4		ug/L		114	52 - 146
Chloroethane	10.0	11.1		ug/L		111	56 - 144
Trichlorofluoromethane	10.0	11.9		ug/L		119	55 - 142
1,1-Dichloroethene	10.0	10.2		ug/L		102	59 - 145
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	70 - 132
Methyl tert-butyl ether	10.0	8.94		ug/L		89	63 - 142
Acetone	20.0	18.0		ug/L		90	28 - 152
Iodomethane	10.0	8.96		ug/L		90	17 - 197
Carbon disulfide	10.0	10.4		ug/L		104	32 - 177
Methylene Chloride	10.0	9.61		ug/L		96	62 - 134
cis-1,2-Dichloroethene	10.0	9.09		ug/L		91	69 - 129
2-Butanone (MEK)	20.0	17.2		ug/L		86	59 - 133
Carbon tetrachloride	10.0	10.4		ug/L		104	59 - 147
Benzene	10.0	9.61		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.77		ug/L		98	66 - 140
Trichloroethene	10.0	9.36		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.1		ug/L		101	65 - 142
1,1-Dichloroethane	10.0	9.91		ug/L		99	66 - 126
1,2-Dichloropropane	10.0	9.56		ug/L		96	72 - 125
2,2-Dichloropropane	10.0	9.26		ug/L		93	43 - 169

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79383/3

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	10.0	9.68		ug/L		97	68 - 134
Chloroform	10.0	9.85		ug/L		99	69 - 128
Bromodichloromethane	10.0	9.21		ug/L		92	73 - 130
1,1-Dichloropropene	10.0	9.96		ug/L		100	59 - 134
cis-1,3-Dichloropropene	10.0	9.72		ug/L		97	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	18.9		ug/L		94	56 - 142
Toluene	10.0	9.69		ug/L		97	67 - 130
trans-1,3-Dichloropropene	10.0	10.1		ug/L		101	63 - 133
1,1,2-Trichloroethane	10.0	9.94		ug/L		99	68 - 130
Tetrachloroethene	10.0	14.2		ug/L		142	61 - 142
1,3-Dichloropropane	10.0	9.57		ug/L		96	62 - 132
2-Hexanone	20.0	19.1		ug/L		95	51 - 130
Dibromochloromethane	10.0	9.27		ug/L		93	58 - 132
1,2-Dibromoethane	10.0	9.28		ug/L		93	68 - 128
Chlorobenzene	10.0	9.22		ug/L		92	60 - 136
1,1,1,2-Tetrachloroethane	10.0	9.37		ug/L		94	57 - 136
Ethylbenzene	10.0	9.37		ug/L		94	68 - 128
Xylenes, Total	30.0	28.9		ug/L		96	68 - 132
Styrene	10.0	9.72		ug/L		97	68 - 133
Bromoform	10.0	8.41		ug/L		84	39 - 149
Isopropylbenzene	10.0	11.2		ug/L		112	79 - 146
Bromobenzene	10.0	9.14		ug/L		91	61 - 134
1,2,3-Trichloropropane	10.0	8.84		ug/L		88	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.89		ug/L		99	68 - 134
N-Propylbenzene	10.0	9.75		ug/L		97	61 - 137
2-Chlorotoluene	10.0	9.53		ug/L		95	58 - 135
4-Chlorotoluene	10.0	9.69		ug/L		97	64 - 134
1,3,5-Trimethylbenzene	10.0	9.43		ug/L		94	63 - 132
tert-Butylbenzene	10.0	10.1		ug/L		101	67 - 148
4-Isopropyltoluene	10.0	10.4		ug/L		104	63 - 138
1,2,4-Trimethylbenzene	10.0	9.62		ug/L		96	63 - 131
sec-Butylbenzene	10.0	9.90		ug/L		99	61 - 134
1,3-Dichlorobenzene	10.0	9.49		ug/L		95	71 - 132
1,4-Dichlorobenzene	10.0	9.46		ug/L		95	72 - 131
1,2-Dichlorobenzene	10.0	9.43		ug/L		94	71 - 133
n-Butylbenzene	10.0	9.83		ug/L		98	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	11.6		ug/L		116	43 - 141
1,2,4-Trichlorobenzene	10.0	10.3		ug/L		103	55 - 151
Hexachlorobutadiene	10.0	9.86		ug/L		99	53 - 140
Naphthalene	10.0	10.7		ug/L		107	19 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	100		67 - 139
Dibromofluoromethane	83		62 - 130
Toluene-d8 (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	79		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79394/4

Matrix: Water

Analysis Batch: 79394

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 13:24	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 13:24	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 13:24	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/16/12 13:24	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 13:24	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/16/12 13:24	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 13:24	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	1
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 13:24	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/16/12 13:24	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 13:24	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/16/12 13:24	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 13:24	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 13:24	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	1
Benzene	0.080	U	1.0	0.080	ug/L			05/16/12 13:24	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 13:24	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 13:24	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 13:24	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/16/12 13:24	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 13:24	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/16/12 13:24	1
Toluene	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 13:24	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/16/12 13:24	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/16/12 13:24	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/16/12 13:24	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/16/12 13:24	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/16/12 13:24	1
Styrene	0.070	U	1.0	0.070	ug/L			05/16/12 13:24	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/16/12 13:24	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/16/12 13:24	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/16/12 13:24	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/16/12 13:24	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79394/4

Matrix: Water

Analysis Batch: 79394

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 13:24	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 13:24	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 13:24	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 13:24	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 13:24	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 13:24	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/16/12 13:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		05/16/12 13:24	1
Dibromofluoromethane	82		62 - 130		05/16/12 13:24	1
Toluene-d8 (Surr)	84		70 - 130		05/16/12 13:24	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		05/16/12 13:24	1

Lab Sample ID: LCS 600-79394/3

Matrix: Water

Analysis Batch: 79394

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	31.2	*	ug/L		312	12 - 136
Chloromethane	10.0	14.8		ug/L		148	32 - 151
Vinyl chloride	10.0	12.2		ug/L		122	47 - 146
Bromomethane	10.0	12.6		ug/L		126	52 - 146
Chloroethane	10.0	11.6		ug/L		116	56 - 144
Trichlorofluoromethane	10.0	12.4		ug/L		124	55 - 142
1,1-Dichloroethene	10.0	10.4		ug/L		104	59 - 145
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	9.20		ug/L		92	63 - 142
Acetone	20.0	15.9		ug/L		80	28 - 152
Iodomethane	10.0	9.30		ug/L		93	17 - 197
Carbon disulfide	10.0	10.3		ug/L		103	32 - 177
Methylene Chloride	10.0	10.3		ug/L		103	62 - 134
cis-1,2-Dichloroethene	10.0	9.27		ug/L		93	69 - 129
2-Butanone (MEK)	20.0	15.5		ug/L		77	59 - 133
Carbon tetrachloride	10.0	11.1		ug/L		111	59 - 147
Benzene	10.0	9.45		ug/L		94	69 - 131
1,2-Dichloroethane	10.0	10.2		ug/L		102	66 - 140
Trichloroethene	10.0	9.35		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	65 - 142
1,1-Dichloroethane	10.0	10.0		ug/L		100	66 - 126
1,2-Dichloropropane	10.0	9.67		ug/L		97	72 - 125
2,2-Dichloropropane	10.0	11.2		ug/L		112	43 - 169

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79394/3

Matrix: Water

Analysis Batch: 79394

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	10.0	9.58		ug/L		96	68 - 134
Chloroform	10.0	9.65		ug/L		96	69 - 128
Bromodichloromethane	10.0	9.71		ug/L		97	73 - 130
1,1-Dichloropropene	10.0	9.59		ug/L		96	59 - 134
cis-1,3-Dichloropropene	10.0	9.95		ug/L		100	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	19.3		ug/L		97	56 - 142
Toluene	10.0	9.15		ug/L		91	67 - 130
trans-1,3-Dichloropropene	10.0	10.6		ug/L		106	63 - 133
1,1,2-Trichloroethane	10.0	9.57		ug/L		96	68 - 130
Tetrachloroethene	10.0	9.34		ug/L		93	61 - 142
1,3-Dichloropropane	10.0	9.45		ug/L		95	62 - 132
2-Hexanone	20.0	18.7		ug/L		94	51 - 130
Dibromochloromethane	10.0	9.83		ug/L		98	58 - 132
1,2-Dibromoethane	10.0	9.56		ug/L		96	68 - 128
Chlorobenzene	10.0	9.10		ug/L		91	60 - 136
1,1,1,2-Tetrachloroethane	10.0	9.55		ug/L		96	57 - 136
Ethylbenzene	10.0	9.08		ug/L		91	68 - 128
Xylenes, Total	30.0	27.5		ug/L		92	68 - 132
Styrene	10.0	9.60		ug/L		96	68 - 133
Bromoform	10.0	9.75		ug/L		98	39 - 149
Isopropylbenzene	10.0	10.7		ug/L		107	79 - 146
Bromobenzene	10.0	8.83		ug/L		88	61 - 134
1,2,3-Trichloropropane	10.0	9.20		ug/L		92	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.94		ug/L		99	68 - 134
N-Propylbenzene	10.0	9.29		ug/L		93	61 - 137
2-Chlorotoluene	10.0	9.01		ug/L		90	58 - 135
4-Chlorotoluene	10.0	9.38		ug/L		94	64 - 134
1,3,5-Trimethylbenzene	10.0	9.17		ug/L		92	63 - 132
tert-Butylbenzene	10.0	9.96		ug/L		100	67 - 148
4-Isopropyltoluene	10.0	9.93		ug/L		99	63 - 138
1,2,4-Trimethylbenzene	10.0	9.18		ug/L		92	63 - 131
sec-Butylbenzene	10.0	9.32		ug/L		93	61 - 134
1,3-Dichlorobenzene	10.0	9.30		ug/L		93	71 - 132
1,4-Dichlorobenzene	10.0	9.09		ug/L		91	72 - 131
1,2-Dichlorobenzene	10.0	9.08		ug/L		91	71 - 133
n-Butylbenzene	10.0	9.60		ug/L		96	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	13.0		ug/L		130	43 - 141
1,2,4-Trichlorobenzene	10.0	9.96		ug/L		100	55 - 151
Hexachlorobutadiene	10.0	9.11		ug/L		91	53 - 140
Naphthalene	10.0	10.4		ug/L		104	19 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	100		67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	85		70 - 130
1,2-Dichloroethane-d4 (Surr)	80		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-79230/1-A

Matrix: Water

Analysis Batch: 79549

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79230

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.080	U	1.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
Phenol	0.040	U	1.5	0.040	ug/L		05/14/12 16:21	05/17/12 17:44	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/14/12 16:21	05/17/12 17:44	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzyl alcohol	0.17	U	5.5	0.17	ug/L		05/14/12 16:21	05/17/12 17:44	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/14/12 16:21	05/17/12 17:44	1
3 & 4 Methylphenol	0.20	U	1.0	0.20	ug/L		05/14/12 16:21	05/17/12 17:44	1
N-Nitrosodi-n-propylamine	0.10	U	2.5	0.10	ug/L		05/14/12 16:21	05/17/12 17:44	1
Hexachloroethane	0.10	U	2.0	0.10	ug/L		05/14/12 16:21	05/17/12 17:44	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/17/12 17:44	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/17/12 17:44	1
2-Nitrophenol	0.22	U	1.0	0.22	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/14/12 16:21	05/17/12 17:44	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Chloroaniline	0.21	U	1.0	0.21	ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Chloro-3-methylphenol	0.17	U	1.0	0.17	ug/L		05/14/12 16:21	05/17/12 17:44	1
2-Methylnaphthalene	0.070	U	1.5	0.070	ug/L		05/14/12 16:21	05/17/12 17:44	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/14/12 16:21	05/17/12 17:44	1
2-Chloronaphthalene	0.080	U	1.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/14/12 16:21	05/17/12 17:44	1
Dimethyl phthalate	0.070	U	2.5	0.070	ug/L		05/14/12 16:21	05/17/12 17:44	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,6-Dinitrotoluene	0.080	U	1.0	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/14/12 16:21	05/17/12 17:44	1
Acenaphthene	0.080	U	1.0	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4-Dinitrophenol	0.39	U	5.0	0.39	ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Nitrophenol	0.56	U	2.5	0.56	ug/L		05/14/12 16:21	05/17/12 17:44	1
Dibenzofuran	0.080	U	1.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/14/12 16:21	05/17/12 17:44	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Chlorophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/14/12 16:21	05/17/12 17:44	1
Fluorene	0.070	U	1.5	0.070	ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/14/12 16:21	05/17/12 17:44	1
4,6-Dinitro-2-methylphenol	0.83	U	2.5	0.83	ug/L		05/14/12 16:21	05/17/12 17:44	1
4-Bromophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/14/12 16:21	05/17/12 17:44	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/14/12 16:21	05/17/12 17:44	1
Pentachlorophenol	0.61	U	2.5	0.61	ug/L		05/14/12 16:21	05/17/12 17:44	1
Phenanthrene	0.060	U	1.5	0.060	ug/L		05/14/12 16:21	05/17/12 17:44	1
Anthracene	0.050	U	1.0	0.050	ug/L		05/14/12 16:21	05/17/12 17:44	1
Di-n-butyl phthalate	0.11	U	2.5	0.11	ug/L		05/14/12 16:21	05/17/12 17:44	1
Fluoranthene	0.070	U	2.5	0.070	ug/L		05/14/12 16:21	05/17/12 17:44	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/14/12 16:21	05/17/12 17:44	1
Butyl benzyl phthalate	0.12	U	2.5	0.12	ug/L		05/14/12 16:21	05/17/12 17:44	1
3,3'-Dichlorobenzidine	0.18	U	10	0.18	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzo[a]anthracene	0.080	U	2.0	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
Bis(2-ethylhexyl) phthalate	0.37	U	2.5	0.37	ug/L		05/14/12 16:21	05/17/12 17:44	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-79230/1-A

Matrix: Water

Analysis Batch: 79549

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79230

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.080	U	1.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzo[b]fluoranthene	0.070	U	2.0	0.070	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzo[k]fluoranthene	0.090	U	2.0	0.090	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzo[a]pyrene	0.080	U	1.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
Indeno[1,2,3-cd]pyrene	0.070	U	2.0	0.070	ug/L		05/14/12 16:21	05/17/12 17:44	1
Dibenz(a,h)anthracene	0.080	U	2.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1
Benzo[g,h,i]perylene	0.080	U	2.5	0.080	ug/L		05/14/12 16:21	05/17/12 17:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	70		10 - 94	05/14/12 16:21	05/17/12 17:44	1
2,4,6-Tribromophenol	64		10 - 123	05/14/12 16:21	05/17/12 17:44	1
2-Fluorobiphenyl	79		43 - 116	05/14/12 16:21	05/17/12 17:44	1
2-Fluorophenol	66		10 - 100	05/14/12 16:21	05/17/12 17:44	1
Nitrobenzene-d5	75		35 - 114	05/14/12 16:21	05/17/12 17:44	1
Terphenyl-d14	73		33 - 141	05/14/12 16:21	05/17/12 17:44	1

Lab Sample ID: LCS 600-79230/2-A

Matrix: Water

Analysis Batch: 79312

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79230

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aniline	10.0	6.14		ug/L		61	13 - 100
Phenol	10.0	8.20		ug/L		82	11 - 112
Bis(2-chloroethyl)ether	10.0	7.81		ug/L		78	40 - 112
2-Chlorophenol	10.0	8.04		ug/L		80	23 - 134
Benzyl alcohol	10.0	8.92		ug/L		89	39 - 115
Bis(2-chloroisopropyl) ether	10.0	6.82		ug/L		68	41 - 111
3 & 4 Methylphenol	10.0	8.92		ug/L		89	27 - 113
N-Nitrosodi-n-propylamine	10.0	8.24		ug/L		82	39 - 124
Hexachloroethane	10.0	7.83		ug/L		78	43 - 118
Nitrobenzene	10.0	7.25		ug/L		72	42 - 119
Isophorone	10.0	7.47		ug/L		75	42 - 116
2-Nitrophenol	10.0	7.76		ug/L		78	40 - 121
2,4-Dimethylphenol	10.0	7.90		ug/L		79	36 - 109
Bis(2-chloroethoxy)methane	10.0	7.97		ug/L		80	42 - 119
2,4-Dichlorophenol	10.0	8.28		ug/L		83	39 - 118
4-Chloroaniline	10.0	7.56		ug/L		76	19 - 129
4-Chloro-3-methylphenol	10.0	8.41		ug/L		84	44 - 131
2-Methylnaphthalene	10.0	7.95		ug/L		80	40 - 121
Hexachlorocyclopentadiene	10.0	5.72		ug/L		57	21 - 126
2,4,6-Trichlorophenol	10.0	8.36		ug/L		84	39 - 123
2,4,5-Trichlorophenol	10.0	7.85		ug/L		79	38 - 145
2-Chloronaphthalene	10.0	7.89		ug/L		79	43 - 120
2-Nitroaniline	10.0	7.68		ug/L		77	42 - 130
Dimethyl phthalate	10.0	8.67		ug/L		87	49 - 121
Acenaphthylene	10.0	8.06		ug/L		81	35 - 135
2,6-Dinitrotoluene	10.0	8.44		ug/L		84	45 - 122
3-Nitroaniline	10.0	7.46		ug/L		75	47 - 138

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-79230/2-A

Matrix: Water

Analysis Batch: 79312

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79230

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	10.0	7.92		ug/L		79	47 - 145
2,4-Dinitrophenol	10.0	8.82		ug/L		88	23 - 130
4-Nitrophenol	10.0	7.90		ug/L		79	14 - 132
Dibenzofuran	10.0	8.50		ug/L		85	46 - 123
2,4-Dinitrotoluene	10.0	8.49		ug/L		85	43 - 128
Diethyl phthalate	10.0	12.0		ug/L		120	51 - 123
4-Chlorophenyl phenyl ether	10.0	9.03		ug/L		90	48 - 125
Fluorene	10.0	8.77		ug/L		88	48 - 127
4-Nitroaniline	10.0	8.28		ug/L		83	32 - 139
4,6-Dinitro-2-methylphenol	10.0	5.56		ug/L		56	24 - 122
4-Bromophenyl phenyl ether	10.0	8.90		ug/L		89	46 - 129
Hexachlorobenzene	10.0	8.62		ug/L		86	46 - 129
Pentachlorophenol	10.0	7.62		ug/L		76	9 - 147
Phenanthrene	10.0	8.56		ug/L		86	52 - 121
Anthracene	10.0	8.32		ug/L		83	53 - 124
Di-n-butyl phthalate	10.0	9.10		ug/L		91	54 - 138
Fluoranthene	10.0	8.61		ug/L		86	53 - 127
Pyrene	10.0	7.56		ug/L		76	49 - 121
Butyl benzyl phthalate	10.0	8.93		ug/L		89	50 - 126
3,3'-Dichlorobenzidine	10.0	8.30	J	ug/L		83	38 - 168
Benzo[a]anthracene	10.0	7.69		ug/L		77	53 - 122
Bis(2-ethylhexyl) phthalate	10.0	7.36		ug/L		74	47 - 132
Chrysene	10.0	8.11		ug/L		81	49 - 124
Di-n-octyl phthalate	10.0	8.43		ug/L		84	27 - 157
Benzo[b]fluoranthene	10.0	9.07		ug/L		91	53 - 131
Benzo[k]fluoranthene	10.0	9.00		ug/L		90	46 - 130
Benzo[a]pyrene	10.0	9.04		ug/L		90	50 - 124
Indeno[1,2,3-cd]pyrene	10.0	7.82		ug/L		78	45 - 124
Dibenz(a,h)anthracene	10.0	9.61		ug/L		96	42 - 134
Benzo[g,h,i]perylene	10.0	10.2		ug/L		102	46 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d6	75		10 - 94
2,4,6-Tribromophenol	77		10 - 123
2-Fluorobiphenyl	77		43 - 116
2-Fluorophenol	69		10 - 100
Nitrobenzene-d5	69		35 - 114
Terphenyl-d14	74		33 - 141

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-79306/1-A

Matrix: Water

Analysis Batch: 79376

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79306

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.83	U	2.0	0.83	mg/L		05/15/12 14:14	05/15/12 22:09	1
>C12-C28	0.96	U	2.0	0.96	mg/L		05/15/12 14:14	05/15/12 22:09	1
>C28-C35	0.96	U	2.0	0.96	mg/L		05/15/12 14:14	05/15/12 22:09	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: MB 600-79306/1-A

Matrix: Water

Analysis Batch: 79376

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79306

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C35	1.6	U	2.0	1.6	mg/L		05/15/12 14:14	05/15/12 22:09	1
Surrogate	%Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	97		70 - 130				05/15/12 14:14	05/15/12 22:09	1

Lab Sample ID: LCS 600-79306/2-A

Matrix: Water

Analysis Batch: 79376

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79306

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
C6-C12	33.3	35.9		mg/L		108	75 - 125	
>C12-C28	33.3	36.8		mg/L		110	75 - 125	
C6-C35	66.7	72.7		mg/L		109	75 - 125	
Surrogate	%Recovery	LCS Qualifier	Limits					
o-Terphenyl	117		70 - 130					

Lab Sample ID: LCSD 600-79306/3-A

Matrix: Water

Analysis Batch: 79376

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 79306

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C12	33.3	38.2		mg/L		115	75 - 125	6	20
>C12-C28	33.3	37.6		mg/L		113	75 - 125	2	20
C6-C35	66.7	75.8		mg/L		114	75 - 125	4	20
Surrogate	%Recovery	LCSD Qualifier	Limits						
o-Terphenyl	120		70 - 130						

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-79110/1-A

Matrix: Water

Analysis Batch: 79444

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79110

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/11/12 15:31	05/16/12 18:01	1
Aluminum	0.022	U	0.50	0.022	mg/L		05/11/12 15:31	05/16/12 18:01	1
Barium	0.0022	U	0.020	0.0022	mg/L		05/11/12 15:31	05/16/12 18:01	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/11/12 15:31	05/16/12 18:01	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/11/12 15:31	05/16/12 18:01	1
Copper	0.00200	J	0.010	0.0015	mg/L		05/11/12 15:31	05/16/12 18:01	1
Manganese	0.00084	U	0.010	0.00084	mg/L		05/11/12 15:31	05/16/12 18:01	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/11/12 15:31	05/16/12 18:01	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/11/12 15:31	05/16/12 18:01	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/11/12 15:31	05/16/12 18:01	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/11/12 15:31	05/16/12 18:01	1
Vanadium	0.0017	U ^	0.010	0.0017	mg/L		05/11/12 15:31	05/16/12 18:01	1
Zinc	0.00300	J	0.030	0.0022	mg/L		05/11/12 15:31	05/16/12 18:01	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 600-79110/2-A

Matrix: Water

Analysis Batch: 79444

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	0.933		mg/L		93	80 - 120
Aluminum	10.0	9.98		mg/L		100	80 - 120
Barium	1.00	0.996		mg/L		100	80 - 120
Cobalt	1.00	0.989		mg/L		99	80 - 120
Chromium	1.00	1.04		mg/L		104	80 - 120
Copper	1.00	1.04		mg/L		104	80 - 120
Manganese	1.00	1.02		mg/L		102	80 - 120
Nickel	1.00	0.946		mg/L		95	80 - 120
Lead	1.00	0.949		mg/L		95	80 - 120
Selenium	1.00	0.930		mg/L		93	80 - 120
Thallium	1.00	0.951		mg/L		95	80 - 120
Vanadium	1.00	1.09	^	mg/L		109	80 - 120
Zinc	1.00	0.960		mg/L		96	80 - 120

Lab Sample ID: 600-54839-4 MS

Matrix: Water

Analysis Batch: 79444

Client Sample ID: MW-17

Prep Type: Total/NA

Prep Batch: 79110

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.026		1.00	0.952		mg/L		93	75 - 125
Aluminum	0.059	J	10.0	10.3		mg/L		102	75 - 125
Barium	0.12		1.00	1.11		mg/L		99	75 - 125
Cobalt	0.0013	J	1.00	1.01		mg/L		101	75 - 125
Chromium	0.0016	U	1.00	1.06		mg/L		106	75 - 125
Copper	0.0015	U	1.00	1.07		mg/L		107	75 - 125
Manganese	0.50		1.00	1.55		mg/L		105	75 - 125
Nickel	0.0018	U	1.00	0.950		mg/L		95	75 - 125
Lead	0.0029	U	1.00	0.950		mg/L		95	75 - 125
Selenium	0.0042	U	1.00	0.917		mg/L		92	75 - 125
Thallium	0.0078	U	1.00	0.925		mg/L		92	75 - 125
Vanadium	0.0017	U ^	1.00	1.13	^	mg/L		113	75 - 125
Zinc	0.0028	J B	1.00	0.989		mg/L		99	75 - 125

Lab Sample ID: 600-54839-4 MSD

Matrix: Water

Analysis Batch: 79444

Client Sample ID: MW-17

Prep Type: Total/NA

Prep Batch: 79110

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	0.026		1.00	0.964		mg/L		94	75 - 125	1	20
Aluminum	0.059	J	10.0	10.7		mg/L		106	75 - 125	4	20
Barium	0.12		1.00	1.16		mg/L		103	75 - 125	4	20
Cobalt	0.0013	J	1.00	1.02		mg/L		102	75 - 125	1	20
Chromium	0.0016	U	1.00	1.02		mg/L		102	75 - 125	3	20
Copper	0.0015	U	1.00	1.04		mg/L		104	75 - 125	3	20
Manganese	0.50		1.00	1.49		mg/L		99	75 - 125	4	20
Nickel	0.0018	U	1.00	0.963		mg/L		96	75 - 125	1	20
Lead	0.0029	U	1.00	0.965		mg/L		96	75 - 125	2	20
Selenium	0.0042	U	1.00	0.930		mg/L		93	75 - 125	1	20
Thallium	0.0078	U	1.00	0.942		mg/L		94	75 - 125	2	20
Vanadium	0.0017	U ^	1.00	1.10	^	mg/L		110	75 - 125	3	20

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-54839-4 MSD

Matrix: Water

Analysis Batch: 79444

Client Sample ID: MW-17

Prep Type: Total/NA

Prep Batch: 79110

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Zinc	0.0028	J B	1.00	1.00		mg/L		100	75 - 125	1	20

Lab Sample ID: 600-54839-4 DU

Matrix: Water

Analysis Batch: 79444

Client Sample ID: MW-17

Prep Type: Total/NA

Prep Batch: 79110

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.026		0.0254		mg/L		2	20
Aluminum	0.059	J	0.0636	J	mg/L		8	20
Barium	0.12		0.122		mg/L		0.3	20
Cobalt	0.0013	J	0.00140	J	mg/L		7	20
Chromium	0.0016	U	0.0016	U	mg/L		NC	20
Copper	0.0015	U	0.0015	U	mg/L		NC	20
Manganese	0.50		0.471		mg/L		6	20
Nickel	0.0018	U	0.0018	U	mg/L		NC	20
Lead	0.0029	U	0.0029	U	mg/L		NC	20
Selenium	0.0042	U	0.0042	U	mg/L		NC	20
Thallium	0.0078	U	0.0078	U	mg/L		NC	20
Vanadium	0.0017	U ^	0.0017	U ^	mg/L		NC	20
Zinc	0.0028	J B	0.00220	J	mg/L		24	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 600-79162/7-A

Matrix: Water

Analysis Batch: 79235

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79162

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/14/12 09:05	05/14/12 15:26	1

Lab Sample ID: LCS 600-79162/8-A

Matrix: Water

Analysis Batch: 79235

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79162

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00300	0.00301		mg/L		100	70 - 130

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

GC/MS VOA

Analysis Batch: 79199

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-2	MW-14	Total/NA	Water	8260B	
600-54839-3	MW-19	Total/NA	Water	8260B	
600-54839-4	MW-17	Total/NA	Water	8260B	
600-54839-6	MW-12	Total/NA	Water	8260B	
600-54839-7	MW-3	Total/NA	Water	8260B	
LCS 600-79199/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79199/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-8 - DL	MW-2	Total/NA	Water	8260B	
600-54839-10	MW-20	Total/NA	Water	8260B	
600-54839-11	MW-9	Total/NA	Water	8260B	
600-54839-12	MW-21	Total/NA	Water	8260B	
600-54839-13	MW-22	Total/NA	Water	8260B	
600-54839-14	MW-18	Total/NA	Water	8260B	
LCS 600-79279/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79279/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-2 - DL	MW-14	Total/NA	Water	8260B	
600-54839-3 - DL	MW-19	Total/NA	Water	8260B	
600-54839-4 - DL	MW-17	Total/NA	Water	8260B	
600-54839-5	MW-15	Total/NA	Water	8260B	
600-54839-5 - DL	MW-15	Total/NA	Water	8260B	
600-54839-6 - DL	MW-12	Total/NA	Water	8260B	
600-54839-7 - DL	MW-3	Total/NA	Water	8260B	
600-54839-8	MW-2	Total/NA	Water	8260B	
LCS 600-79300/5	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79300/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-9	MW-4	Total/NA	Water	8260B	
600-54839-14 - DL	MW-18	Total/NA	Water	8260B	
LCS 600-79383/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79383/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	8260B	
600-54839-1 - DL	MW-16	Total/NA	Water	8260B	
600-54839-5 - DL	MW-15	Total/NA	Water	8260B	
LCS 600-79394/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79394/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 79230

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	3510C	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

GC/MS Semi VOA (Continued)

Prep Batch: 79230 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-2	MW-14	Total/NA	Water	3510C	
600-54839-3	MW-19	Total/NA	Water	3510C	
600-54839-4	MW-17	Total/NA	Water	3510C	
600-54839-5	MW-15	Total/NA	Water	3510C	
600-54839-6	MW-12	Total/NA	Water	3510C	
600-54839-7	MW-3	Total/NA	Water	3510C	
600-54839-8	MW-2	Total/NA	Water	3510C	
600-54839-9	MW-4	Total/NA	Water	3510C	
600-54839-10	MW-20	Total/NA	Water	3510C	
600-54839-11	MW-9	Total/NA	Water	3510C	
600-54839-12	MW-21	Total/NA	Water	3510C	
600-54839-13	MW-22	Total/NA	Water	3510C	
600-54839-14	MW-18	Total/NA	Water	3510C	
600-54839-14 - DL	MW-18	Total/NA	Water	3510C	
LCS 600-79230/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-79230/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 79312

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	8270C LL	79230
600-54839-9	MW-4	Total/NA	Water	8270C LL	79230
600-54839-10	MW-20	Total/NA	Water	8270C LL	79230
600-54839-11	MW-9	Total/NA	Water	8270C LL	79230
600-54839-12	MW-21	Total/NA	Water	8270C LL	79230
600-54839-13	MW-22	Total/NA	Water	8270C LL	79230
LCS 600-79230/2-A	Lab Control Sample	Total/NA	Water	8270C LL	79230

Analysis Batch: 79549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-3	MW-19	Total/NA	Water	8270C LL	79230
600-54839-4	MW-17	Total/NA	Water	8270C LL	79230
600-54839-5	MW-15	Total/NA	Water	8270C LL	79230
600-54839-6	MW-12	Total/NA	Water	8270C LL	79230
600-54839-7	MW-3	Total/NA	Water	8270C LL	79230
600-54839-8	MW-2	Total/NA	Water	8270C LL	79230
600-54839-14	MW-18	Total/NA	Water	8270C LL	79230
MB 600-79230/1-A	Method Blank	Total/NA	Water	8270C LL	79230

Analysis Batch: 79879

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-2	MW-14	Total/NA	Water	8270C LL	79230

Analysis Batch: 79972

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-14 - DL	MW-18	Total/NA	Water	8270C LL	79230

GC Semi VOA

Prep Batch: 79306

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	TX_1005_W_Pr ep	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

GC Semi VOA (Continued)

Prep Batch: 79306 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-2	MW-14	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-3	MW-19	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-4	MW-17	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-5	MW-15	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-6	MW-12	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-7	MW-3	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-8	MW-2	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-9	MW-4	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-10	MW-20	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-11	MW-9	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-12	MW-21	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-13	MW-22	Total/NA	Water	TX_1005_W_Pr ep	
600-54839-14	MW-18	Total/NA	Water	TX_1005_W_Pr ep	
LCS 600-79306/2-A	Lab Control Sample	Total/NA	Water	TX_1005_W_Pr ep	
LCSD 600-79306/3-A	Lab Control Sample Dup	Total/NA	Water	TX_1005_W_Pr ep	
MB 600-79306/1-A	Method Blank	Total/NA	Water	TX_1005_W_Pr ep	

Analysis Batch: 79369

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-7	MW-3	Total/NA	Water	TX 1005	79306

Analysis Batch: 79376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	TX 1005	79306
600-54839-2	MW-14	Total/NA	Water	TX 1005	79306
600-54839-3	MW-19	Total/NA	Water	TX 1005	79306
600-54839-4	MW-17	Total/NA	Water	TX 1005	79306
600-54839-5	MW-15	Total/NA	Water	TX 1005	79306
600-54839-6	MW-12	Total/NA	Water	TX 1005	79306
600-54839-8	MW-2	Total/NA	Water	TX 1005	79306
600-54839-9	MW-4	Total/NA	Water	TX 1005	79306
600-54839-10	MW-20	Total/NA	Water	TX 1005	79306
600-54839-11	MW-9	Total/NA	Water	TX 1005	79306
600-54839-12	MW-21	Total/NA	Water	TX 1005	79306
600-54839-13	MW-22	Total/NA	Water	TX 1005	79306
600-54839-14	MW-18	Total/NA	Water	TX 1005	79306
LCS 600-79306/2-A	Lab Control Sample	Total/NA	Water	TX 1005	79306
LCSD 600-79306/3-A	Lab Control Sample Dup	Total/NA	Water	TX 1005	79306
MB 600-79306/1-A	Method Blank	Total/NA	Water	TX 1005	79306

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Metals

Prep Batch: 79110

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	3010A	
600-54839-2	MW-14	Total/NA	Water	3010A	
600-54839-3	MW-19	Total/NA	Water	3010A	
600-54839-4	MW-17	Total/NA	Water	3010A	
600-54839-4 DU	MW-17	Total/NA	Water	3010A	
600-54839-4 MS	MW-17	Total/NA	Water	3010A	
600-54839-4 MSD	MW-17	Total/NA	Water	3010A	
600-54839-5	MW-15	Total/NA	Water	3010A	
600-54839-6	MW-12	Total/NA	Water	3010A	
600-54839-7	MW-3	Total/NA	Water	3010A	
600-54839-8	MW-2	Total/NA	Water	3010A	
600-54839-9	MW-4	Total/NA	Water	3010A	
600-54839-10	MW-20	Total/NA	Water	3010A	
600-54839-11	MW-9	Total/NA	Water	3010A	
600-54839-12	MW-21	Total/NA	Water	3010A	
600-54839-13	MW-22	Total/NA	Water	3010A	
600-54839-14	MW-18	Total/NA	Water	3010A	
LCS 600-79110/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 600-79110/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 79162

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	7470A	
600-54839-2	MW-14	Total/NA	Water	7470A	
600-54839-3	MW-19	Total/NA	Water	7470A	
600-54839-4	MW-17	Total/NA	Water	7470A	
600-54839-5	MW-15	Total/NA	Water	7470A	
600-54839-6	MW-12	Total/NA	Water	7470A	
600-54839-7	MW-3	Total/NA	Water	7470A	
600-54839-8	MW-2	Total/NA	Water	7470A	
600-54839-9	MW-4	Total/NA	Water	7470A	
600-54839-10	MW-20	Total/NA	Water	7470A	
600-54839-11	MW-9	Total/NA	Water	7470A	
600-54839-12	MW-21	Total/NA	Water	7470A	
600-54839-13	MW-22	Total/NA	Water	7470A	
600-54839-14	MW-18	Total/NA	Water	7470A	
LCS 600-79162/8-A	Lab Control Sample	Total/NA	Water	7470A	
MB 600-79162/7-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 79235

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	7470A	79162
600-54839-2	MW-14	Total/NA	Water	7470A	79162
600-54839-3	MW-19	Total/NA	Water	7470A	79162
600-54839-4	MW-17	Total/NA	Water	7470A	79162
600-54839-5	MW-15	Total/NA	Water	7470A	79162
600-54839-6	MW-12	Total/NA	Water	7470A	79162
600-54839-7	MW-3	Total/NA	Water	7470A	79162
600-54839-8	MW-2	Total/NA	Water	7470A	79162
600-54839-9	MW-4	Total/NA	Water	7470A	79162
600-54839-10	MW-20	Total/NA	Water	7470A	79162
600-54839-11	MW-9	Total/NA	Water	7470A	79162

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Metals (Continued)

Analysis Batch: 79235 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-12	MW-21	Total/NA	Water	7470A	79162
600-54839-13	MW-22	Total/NA	Water	7470A	79162
600-54839-14	MW-18	Total/NA	Water	7470A	79162
LCS 600-79162/8-A	Lab Control Sample	Total/NA	Water	7470A	79162
MB 600-79162/7-A	Method Blank	Total/NA	Water	7470A	79162

Analysis Batch: 79444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-1	MW-16	Total/NA	Water	6010B	79110
600-54839-2	MW-14	Total/NA	Water	6010B	79110
600-54839-3	MW-19	Total/NA	Water	6010B	79110
600-54839-4	MW-17	Total/NA	Water	6010B	79110
600-54839-4 DU	MW-17	Total/NA	Water	6010B	79110
600-54839-4 MS	MW-17	Total/NA	Water	6010B	79110
600-54839-4 MSD	MW-17	Total/NA	Water	6010B	79110
600-54839-5	MW-15	Total/NA	Water	6010B	79110
600-54839-6	MW-12	Total/NA	Water	6010B	79110
600-54839-7	MW-3	Total/NA	Water	6010B	79110
600-54839-8	MW-2	Total/NA	Water	6010B	79110
600-54839-9	MW-4	Total/NA	Water	6010B	79110
600-54839-10	MW-20	Total/NA	Water	6010B	79110
600-54839-11	MW-9	Total/NA	Water	6010B	79110
600-54839-12	MW-21	Total/NA	Water	6010B	79110
600-54839-13	MW-22	Total/NA	Water	6010B	79110
600-54839-14	MW-18	Total/NA	Water	6010B	79110
LCS 600-79110/2-A	Lab Control Sample	Total/NA	Water	6010B	79110
MB 600-79110/1-A	Method Blank	Total/NA	Water	6010B	79110

Analysis Batch: 79470

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54839-5	MW-15	Total/NA	Water	6010B	79110
600-54839-7	MW-3	Total/NA	Water	6010B	79110
600-54839-9	MW-4	Total/NA	Water	6010B	79110
600-54839-10	MW-20	Total/NA	Water	6010B	79110
600-54839-11	MW-9	Total/NA	Water	6010B	79110
600-54839-12	MW-21	Total/NA	Water	6010B	79110
600-54839-13	MW-22	Total/NA	Water	6010B	79110

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-16

Date Collected: 05/10/12 07:50

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79394	05/16/12 17:41	DT	TAL HOU
Total/NA	Analysis	8260B	DL	100	79394	05/16/12 18:10	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79312	05/15/12 16:37	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 02:11	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 15:52	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 18:34	DCL	TAL HOU

Client Sample ID: MW-14

Date Collected: 05/10/12 09:20

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	79199	05/14/12 19:59	DT	TAL HOU
Total/NA	Analysis	8260B	DL	1000	79300	05/15/12 18:53	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	79879	05/22/12 14:25	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 02:45	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 15:54	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 18:37	DCL	TAL HOU

Client Sample ID: MW-19

Date Collected: 05/10/12 11:30

Date Received: 05/11/12 10:10

Lab Sample ID: 600-54839-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	79199	05/14/12 18:05	DT	TAL HOU
Total/NA	Analysis	8260B	DL	500	79300	05/15/12 14:08	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	79549	05/18/12 01:09	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 03:20	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 15:56	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 18:39	DCL	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-17

Lab Sample ID: 600-54839-4

Date Collected: 05/10/12 12:40

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	79199	05/14/12 18:33	DT	TAL HOU
Total/NA	Analysis	8260B	DL	200	79300	05/15/12 16:29	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	79549	05/18/12 01:35	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 04:30	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 15:58	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 18:42	DCL	TAL HOU

Client Sample ID: MW-15

Lab Sample ID: 600-54839-5

Date Collected: 05/10/12 14:20

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		10	79300	05/15/12 19:21	DT	TAL HOU
Total/NA	Analysis	8260B	DL	100	79300	05/15/12 19:50	DT	TAL HOU
Total/NA	Analysis	8260B	DL	1000	79394	05/16/12 19:35	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	79549	05/18/12 02:01	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 05:05	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:00	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 18:51	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:00	DCL	TAL HOU

Client Sample ID: MW-12

Lab Sample ID: 600-54839-6

Date Collected: 05/10/12 15:20

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	79199	05/14/12 19:02	DT	TAL HOU
Total/NA	Analysis	8260B	DL	1000	79300	05/15/12 16:58	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	79549	05/18/12 02:27	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 05:39	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:02	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 18:53	DCL	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-3

Lab Sample ID: 600-54839-7

Date Collected: 05/10/12 16:20

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	79199	05/14/12 20:56	DT	TAL HOU
Total/NA	Analysis	8260B	DL	2000	79300	05/15/12 20:19	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		50	79549	05/18/12 02:54	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		5	79369	05/16/12 13:07	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:03	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:03	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:03	DCL	TAL HOU

Client Sample ID: MW-2

Lab Sample ID: 600-54839-8

Date Collected: 05/10/12 17:15

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	50	79279	05/15/12 07:14	DT	TAL HOU
Total/NA	Analysis	8260B		5	79300	05/15/12 14:36	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	79549	05/18/12 03:20	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 06:48	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:05	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:05	DCL	TAL HOU

Client Sample ID: MW-4

Lab Sample ID: 600-54839-9

Date Collected: 05/09/12 11:00

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		5	79383	05/16/12 10:09	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79312	05/15/12 20:05	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 07:22	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:11	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:08	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:12	DCL	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-20

Lab Sample ID: 600-54839-10

Date Collected: 05/09/12 12:15

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 01:04	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79312	05/15/12 20:31	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 07:56	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:13	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:10	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:15	DCL	TAL HOU

Client Sample ID: MW-9

Lab Sample ID: 600-54839-11

Date Collected: 05/09/12 14:30

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 01:32	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79312	05/15/12 20:56	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 08:30	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:14	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:12	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:17	DCL	TAL HOU

Client Sample ID: MW-21

Lab Sample ID: 600-54839-12

Date Collected: 05/09/12 15:30

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 02:01	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79312	05/15/12 21:22	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 09:05	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:16	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:15	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:20	DCL	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Client Sample ID: MW-22

Lab Sample ID: 600-54839-13

Date Collected: 05/09/12 16:40

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 02:30	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79312	05/15/12 21:48	TTD	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 09:39	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:18	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:17	DCL	TAL HOU
Total/NA	Analysis	6010B		1	79470	05/17/12 12:22	DCL	TAL HOU

Client Sample ID: MW-18

Lab Sample ID: 600-54839-14

Date Collected: 05/09/12 17:50

Matrix: Water

Date Received: 05/11/12 10:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		200	79279	05/15/12 08:11	DT	TAL HOU
Total/NA	Analysis	8260B	DL	5000	79383	05/16/12 09:40	DT	TAL HOU
Total/NA	Prep	3510C			79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL		10	79549	05/18/12 04:12	TTD	TAL HOU
Total/NA	Prep	3510C	DL		79230	05/14/12 16:21	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	79972	05/23/12 13:11	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79306	05/15/12 14:14	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79376	05/16/12 10:48	RV	TAL HOU
Total/NA	Prep	7470A			79162	05/14/12 09:05	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79235	05/14/12 16:20	SRP	TAL HOU
Total/NA	Prep	3010A			79110	05/11/12 15:31	NER	TAL HOU
Total/NA	Analysis	6010B		1	79444	05/16/12 19:20	DCL	TAL HOU

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Houston	Arkansas DEQ	State Program	6	88-0759
TestAmerica Houston	Louisiana	NELAC	6	30643
TestAmerica Houston	Oklahoma	State Program	6	9503
TestAmerica Houston	Texas	NELAC	6	T104704223-10-6-TX
TestAmerica Houston	USDA	Federal		P330-08-00217
TestAmerica Houston	Utah	NELAC	8	GULF

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
7470A	Mercury (CVAA)	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54839-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-54839-1	MW-16	Water	05/10/12 07:50	05/11/12 10:10
600-54839-2	MW-14	Water	05/10/12 09:20	05/11/12 10:10
600-54839-3	MW-19	Water	05/10/12 11:30	05/11/12 10:10
600-54839-4	MW-17	Water	05/10/12 12:40	05/11/12 10:10
600-54839-5	MW-15	Water	05/10/12 14:20	05/11/12 10:10
600-54839-6	MW-12	Water	05/10/12 15:20	05/11/12 10:10
600-54839-7	MW-3	Water	05/10/12 16:20	05/11/12 10:10
600-54839-8	MW-2	Water	05/10/12 17:15	05/11/12 10:10
600-54839-9	MW-4	Water	05/09/12 11:00	05/11/12 10:10
600-54839-10	MW-20	Water	05/09/12 12:15	05/11/12 10:10
600-54839-11	MW-9	Water	05/09/12 14:30	05/11/12 10:10
600-54839-12	MW-21	Water	05/09/12 15:30	05/11/12 10:10
600-54839-13	MW-22	Water	05/09/12 16:40	05/11/12 10:10
600-54839-14	MW-18	Water	05/09/12 17:50	05/11/12 10:10

TestAmerica Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica

Client Information		Sampler: JOHN BRAYTON		Lab PM: Kudchadkar, Sachin G		Carrier Tracking No(s):		COC No: 600-9060.1																									
Client Contact: Mr. Tim Nickels		Phone:		E-Mail: sachin.kudchadkar@testamericainc.com				Page: 1 of 2																									
Company: Pastor, Behling & Wheeler LLC				Analysis Requested																													
Address: 2201 Double Creek Dr Suite 4004		Due Date Requested:		<table border="1"> <tr> <td>Field Filtered Sample (Yes or No)</td> <td>Perform MS/MSD (Yes or No)</td> <td>6010B, 7470A - Metals- TOTAL</td> <td>TX 1005, TPH: HOLD TX1006</td> <td>8260B_LL - VOC</td> <td>8270C_LL - SVOC</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>						Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470A - Metals- TOTAL	TX 1005, TPH: HOLD TX1006	8260B_LL - VOC	8270C_LL - SVOC																		
Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7470A - Metals- TOTAL	TX 1005, TPH: HOLD TX1006							8260B_LL - VOC	8270C_LL - SVOC																						
City: Round Rock		TAT Requested (days):		<table border="1"> <tr> <td colspan="6">Total Number of containers</td> </tr> <tr> <td colspan="6">Preservation Codes:</td> </tr> <tr> <td colspan="6"> A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amzlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify) </td> </tr> </table>						Total Number of containers						Preservation Codes:						A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amzlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)											
Total Number of containers																																	
Preservation Codes:																																	
A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2SO3 G - Amzlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone J - DI Water V - MCAA K - EDTA W - ph 4-5 L - EDA Z - other (specify)																																	
State, Zip: TX, 78664		PO #:		<table border="1"> <tr> <td colspan="6">Special Instructions/Note:</td> </tr> <tr> <td colspan="6"></td> </tr> </table>						Special Instructions/Note:																							
Special Instructions/Note:																																	
Phone: 512-671-3434(Tel) 512-671-3446(Fax)		WO #:																															
Email: tim.nickels@pbwllc.com		Project #:																															
Project Name: R&H Oil		SSOW#:																															
Site: San Antonio																																	
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)																												
						Preservation Code:																											
MW-16		5-10-12	0750	G	W	X	X	X																									
MW-14		↓	0920	G	W	X	X	X																									
MW-19			1130	G	W	X	X	X																									
MW-17			1240	G	W	X	X	X																									
MW-15			1420	G	W	X	X	X																									
MW-13			1520	G	W	X	X	X																									
MW-3		↓	1620	G	W	X	X	X																									
MW-2			1715	G	W	X	X	X																									
MW-4			5-9-12 1100	G	W	X	X	X																									
MW-20		↓	1215	G	W	X	X	X																									
MW-9			1430	G	W	X	X	X																									
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological																																	
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																	
Deliverable Requested: I, II, III, IV, Other (specify)																																	
Special Instructions/QC Requirements:																																	
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:																											
Relinquished by: <i>John Brayton</i>		Date/Time: 5-10-12 1900		Company: PBW		Received by: <i>[Signature]</i>		Date/Time: 5/10/12 1900																									
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:																									
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:																									
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:																													

TestAmerica Houston

6310 Rothway Street
Houston, TX 77040
Phone (713) 690-4444 Fax (713) 690-5646

Chain of Custody Record

TestAmerica

Client Information Client Contact: Mr. Tim Nickels Company: Pastor, Behling & Wheeler LLC Address: 2201 Double Creek Dr Suite 4004 City: Round Rock State, Zip: TX, 78664 Phone: 512-671-3434(Tel) 512-671-3446(Fax) Email: tim.nickels@pbwllc.com Project Name: R&H Oil Site: San Antonio		Sampler: JOHN BRAYTON		Lab PM: Kudchadkar, Sachin G		Carrier Tracking No(s):		COC No: 600-9060.1																																																													
		Phone:		E-Mail: sachin.kudchadkar@testamericainc.com				Page: 2 of 2																																																													
					Analysis Requested																																																																
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Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological					Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months																																																																
Deliverable Requested: I, II, III, IV, Other (specify)					Special Instructions/QC Requirements:																																																																
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:																																																															
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:																																																																
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Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:																																																																
Custody Seals Intact:		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:																																																																	

Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-54839-1

Login Number: 54839

List Source: TestAmerica Houston

List Number: 1

Creator: Trenery, Michael J

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.1 3.6 5.5 5.6
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Houston

6310 Rothway Street

Houston, TX 77040

Tel: (713)690-4444

TestAmerica Job ID: 600-54909-1

Client Project/Site: R&H Oil

Revision: 1

For:

Pastor, Behling & Wheeler LLC

2201 Double Creek Dr

Suite 4004

Round Rock, Texas 78664

Attn: Mr. Tim Nickels



Authorized for release by:

7/18/2012 12:03:41 PM

Cathy Upton

LAN Analyst

cathy.upton@testamericainc.com

Designee for

Sachin Kudchadkar

Project Manager II

sachin.kudchadkar@testamericainc.com

LINKS

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results through

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
*	LCS or LCSD exceeds the control limits
F	MS or MSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
F	MS or MSD exceeds the control limits
4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
F	RPD of the MS and MSD exceeds the control limits
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
F	MS or MSD exceeds the control limits
F	RPD of the MS and MSD exceeds the control limits

Metals

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.
F	MS or MSD exceeds the control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Job ID: 600-54909-1

Laboratory: TestAmerica Houston

Narrative

Job Narrative 600-54909-1

Comments

The report was revised to correct the Chrysene recovery in the MSD and to verify that Chrysene was ND in all samples.

Receipt

The samples were received on 5/12/2012 9:42 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 3.8° C, 4.1° C and 6.0° C.

Except:

One or more containers for the following samples were received broken or leaking: DUP-1 (600-54909-2), DUP-2 (600-54909-7), MW-5 (600-54909-3 MS), MW-5 (600-54909-3 MSD), MW-6 (600-54909-9), MW-7 (600-54909-8 MS), MW-7 (600-54909-8 MSD), MW-8 (600-54909-6). Some containers were not received.

GC/MS VOA

Method(s) 8260B: The following samples were diluted due to the abundance of target analytes: MW-5 (600-54909-3) and MW-6 (600-54909-9). Elevated reporting limits (RLs) are provided.

Method(s) 8260B: The laboratory control samples (LCS's) for batches 79279, 79300, 79383 and 79394 exceeded control limits for the following analyte: Dichlorodifluoromethane. This analyte was biased high in the LCS's and was not detected in the associated samples; therefore, the data have been reported.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batches 79279 and 79300 were outside control limits: MW-5 (600-54909-3 MS, MS DL), MW-5 (600-54909-3 MSD, MSD DL). Matrix interference is suspected.

Method(s) 8260B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 79394 were outside control limits: MW-7 (600-54909-8 MS), MW-7 (600-54909-8 MSD). Matrix interference is suspected.

No other analytical or quality issues were noted.

GC/MS Semi VOA

Method(s) 8270C LL: The following sample was diluted due to the abundance of target analytes: MW-6 (600-54909-9). Elevated reporting limits (RLs) are provided.

Method(s) 8270C LL: Due to the level of dilution required for the following sample, surrogate recoveries are not reported: MW-6 (600-54909-9 DL).

Method(s) 8270C LL: The method blank for batch 79421 contained Butyl benzyl phthalate above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 8270C LL: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision associated with batch 79421 were outside control limits: MW-5 (600-54909-3 MS), MW-5 (600-54909-3 MSD), MW-7 (600-54909-8 MS), MW-7 (600-54909-8 MSD). Matrix interference is suspected.

No other analytical or quality issues were noted.

GC Semi VOA

Method(s) TX 1005: The matrix spike / matrix spike duplicate (MS/MSD) recoveries and precision associated with batch 79551 were outside control limits: MW-5 (600-54909-3 MS), MW-5 (600-54909-3 MSD). Matrix interference is suspected.

No other analytical or quality issues were noted.

Metals

Case Narrative

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Job ID: 600-54909-1 (Continued)

Laboratory: TestAmerica Houston (Continued)

Method(s) 6010B: The method blanks for prep batch 79276 contained aluminum and zinc above the method detection limit. These target analytes concentrations were less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

Method(s) 6010B: The serial dilution performed for the following sample associated with batch 79276 was outside control limits for barium: (600-54909-3 SD). Matrix interference is suspected.

Method(s) 6010B: The continuing calibration verification (CCV) for barium associated with batch 79370 recovered above the upper control limit. This CCV only bracketed the serial dilution for this group; therefore, the data have been reported.

Method(s) 7470A: The matrix spike / matrix spike duplicate (MS/MSD) recoveries associated with batch 79339 were outside control limits: MW-5 (600-54909-3 MS), MW-5 (600-54909-3 MSD). Matrix interference is suspected.

Method(s) 7470A: The post digestion spike % recovery for mercury associated with batch 79339 was outside of control limits. Matrix interference is suspected.

Method(s) 7470A: The following sample was prepped at a reduced volume due to insufficient volume received: MW-10 (600-54909-5).

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-1

Lab Sample ID: 600-54909-1

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	9.0		1.0	0.12	ug/L	1		8260B	Total/NA
Benzene	11		1.0	0.080	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	5.9		1.0	0.16	ug/L	1		8260B	Total/NA
Chloroform	0.33	J	1.0	0.13	ug/L	1		8260B	Total/NA
Toluene	1.2		1.0	0.15	ug/L	1		8260B	Total/NA
Ethylbenzene	0.47	J	1.0	0.11	ug/L	1		8260B	Total/NA
Xylenes, Total	2.6		1.0	0.26	ug/L	1		8260B	Total/NA
Isopropylbenzene	29		1.0	0.18	ug/L	1		8260B	Total/NA
N-Propylbenzene	31		1.0	0.15	ug/L	1		8260B	Total/NA
tert-Butylbenzene	0.94	J	1.0	0.080	ug/L	1		8260B	Total/NA
sec-Butylbenzene	2.9		1.0	0.12	ug/L	1		8260B	Total/NA
n-Butylbenzene	2.7		1.0	0.16	ug/L	1		8260B	Total/NA
Naphthalene	0.78	J	1.0	0.32	ug/L	1		8260B	Total/NA
2-Methylnaphthalene	3.4		1.5	0.069	ug/L	1		8270C LL	Total/NA
Acenaphthene	0.44	J	0.99	0.079	ug/L	1		8270C LL	Total/NA
Dibenzofuran	0.93	J	1.5	0.079	ug/L	1		8270C LL	Total/NA
Fluorene	1.2	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Phenanthrene	0.35	J	1.5	0.059	ug/L	1		8270C LL	Total/NA
Anthracene	0.16	J	0.99	0.049	ug/L	1		8270C LL	Total/NA
Di-n-butyl phthalate	0.31	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.57	J B	2.5	0.12	ug/L	1		8270C LL	Total/NA
Bis(2-ethylhexyl) phthalate	0.40	J	2.5	0.36	ug/L	1		8270C LL	Total/NA
Arsenic	0.030		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.077	J B	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.51		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0026	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0030	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.27		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0087	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Zinc	0.0058	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: DUP-1

Lab Sample ID: 600-54909-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	9.5		1.0	0.12	ug/L	1		8260B	Total/NA
Benzene	12		1.0	0.080	ug/L	1		8260B	Total/NA
1,2-Dichloropropane	6.9		1.0	0.16	ug/L	1		8260B	Total/NA
Chloroform	0.54	J	1.0	0.13	ug/L	1		8260B	Total/NA
Toluene	1.4		1.0	0.15	ug/L	1		8260B	Total/NA
Ethylbenzene	0.51	J	1.0	0.11	ug/L	1		8260B	Total/NA
Xylenes, Total	2.8		1.0	0.26	ug/L	1		8260B	Total/NA
Isopropylbenzene	35		1.0	0.18	ug/L	1		8260B	Total/NA
N-Propylbenzene	38		1.0	0.15	ug/L	1		8260B	Total/NA
1,3,5-Trimethylbenzene	0.10	J	1.0	0.10	ug/L	1		8260B	Total/NA
tert-Butylbenzene	1.2		1.0	0.080	ug/L	1		8260B	Total/NA
1,2,4-Trimethylbenzene	0.14	J	1.0	0.14	ug/L	1		8260B	Total/NA
sec-Butylbenzene	3.8		1.0	0.12	ug/L	1		8260B	Total/NA
n-Butylbenzene	3.4		1.0	0.16	ug/L	1		8260B	Total/NA
Naphthalene	0.80	J	1.0	0.32	ug/L	1		8260B	Total/NA
Nitrobenzene	1.3	J	1.5	0.11	ug/L	1		8270C LL	Total/NA
2-Methylnaphthalene	3.3		1.5	0.069	ug/L	1		8270C LL	Total/NA
Acenaphthene	0.32	J	0.99	0.079	ug/L	1		8270C LL	Total/NA
Dibenzofuran	0.94	J	1.5	0.079	ug/L	1		8270C LL	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: DUP-1 (Continued)

Lab Sample ID: 600-54909-2

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Fluorene	1.1	J	1.5	0.069	ug/L	1		8270C LL	Total/NA
Phenanthrene	0.31	J	1.5	0.059	ug/L	1		8270C LL	Total/NA
Di-n-butyl phthalate	0.29	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.47	J B	2.5	0.12	ug/L	1		8270C LL	Total/NA
Arsenic	0.032		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.040	J B	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.51		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0059	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0041	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.27		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.017		0.010	0.0018	mg/L	1		6010B	Total/NA
Zinc	0.0069	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-5

Lab Sample ID: 600-54909-3

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	160		5.0	0.40	ug/L	5		8260B	Total/NA
1,2-Dichloropropane	1.7	J	5.0	0.80	ug/L	5		8260B	Total/NA
Chloroform	1.4	J	5.0	0.65	ug/L	5		8260B	Total/NA
Toluene	1.8	J	5.0	0.75	ug/L	5		8260B	Total/NA
Ethylbenzene	3.0	J	5.0	0.55	ug/L	5		8260B	Total/NA
Xylenes, Total	4.9	J	5.0	1.3	ug/L	5		8260B	Total/NA
Isopropylbenzene	19		5.0	0.90	ug/L	5		8260B	Total/NA
N-Propylbenzene	23		5.0	0.75	ug/L	5		8260B	Total/NA
tert-Butylbenzene	0.97	J	5.0	0.40	ug/L	5		8260B	Total/NA
1,2,4-Trimethylbenzene	2.2	J	5.0	0.70	ug/L	5		8260B	Total/NA
sec-Butylbenzene	3.4	J	5.0	0.60	ug/L	5		8260B	Total/NA
n-Butylbenzene	4.5	J	5.0	0.80	ug/L	5		8260B	Total/NA
Naphthalene	15		5.0	1.6	ug/L	5		8260B	Total/NA
Methyl tert-butyl ether - DL	460		50	6.0	ug/L	50		8260B	Total/NA
Phenol	1.2	J	7.4	0.20	ug/L	5		8270C LL	Total/NA
2-Methylnaphthalene	260		7.4	0.34	ug/L	5		8270C LL	Total/NA
Acenaphthene	2.3	J	4.9	0.39	ug/L	5		8270C LL	Total/NA
Dibenzofuran	1.2	J	7.4	0.39	ug/L	5		8270C LL	Total/NA
Fluorene	4.2	J	7.4	0.34	ug/L	5		8270C LL	Total/NA
Phenanthrene	2.0	J	7.4	0.30	ug/L	5		8270C LL	Total/NA
C6-C12	2.8		1.9	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	16		1.9	0.93	mg/L	1		TX 1005	Total/NA
C6-C35	20		1.9	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.19		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.034	J B	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.45		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0041	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Copper	0.0057	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.49		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0045	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Lead	0.0044	J	0.010	0.0029	mg/L	1		6010B	Total/NA
Zinc	0.074	B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-11

Lab Sample ID: 600-54909-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.57	J	1.0	0.060	ug/L	1		8260B	Total/NA

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-11 (Continued)

Lab Sample ID: 600-54909-4

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	2.0		1.0	0.18	ug/L	1		8260B	Total/NA
Chloroform	0.35	J	1.0	0.13	ug/L	1		8260B	Total/NA
Tetrachloroethene	3.8		1.0	0.13	ug/L	1		8260B	Total/NA
2,4-Dichlorophenol	0.29	J	2.5	0.15	ug/L	1		8270C LL	Total/NA
Barium	0.13		0.020	0.0022	mg/L	1		6010B	Total/NA
Copper	0.0022	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.011		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0074	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0044	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-10

Lab Sample ID: 600-54909-5

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Di-n-butyl phthalate	0.17	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.18	J B	2.5	0.12	ug/L	1		8270C LL	Total/NA
Aluminum	0.30	J B	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.11		0.020	0.0022	mg/L	1		6010B	Total/NA
Copper	0.0027	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.080		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0026	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0092	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-8

Lab Sample ID: 600-54909-6

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.17	J	1.0	0.12	ug/L	1		8260B	Total/NA
Benzene	0.23	J	1.0	0.080	ug/L	1		8260B	Total/NA
Di-n-butyl phthalate	1.5	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Arsenic	0.0044	J	0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.34	J B	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.30		0.020	0.0022	mg/L	1		6010B	Total/NA
Chromium	0.0018	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Manganese	0.45		0.010	0.00084	mg/L	1		6010B	Total/NA
Zinc	0.0037	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: DUP-2

Lab Sample ID: 600-54909-7

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	0.19	J	1.0	0.12	ug/L	1		8260B	Total/NA
Benzene	0.22	J	1.0	0.080	ug/L	1		8260B	Total/NA
Di-n-butyl phthalate	1.6	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.15	J B	2.5	0.12	ug/L	1		8270C LL	Total/NA
Arsenic	0.0045	J	0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.31	J B	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.30		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.00070	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Chromium	0.0020	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Manganese	0.44		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0018	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.0064	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-7

Lab Sample ID: 600-54909-8

Detection Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-7 (Continued)

Lab Sample ID: 600-54909-8

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methyl tert-butyl ether	1.4		1.0	0.12	ug/L	1		8260B	Total/NA
Benzene	0.14	J	1.0	0.080	ug/L	1		8260B	Total/NA
Di-n-butyl phthalate	0.19	J	2.5	0.11	ug/L	1		8270C LL	Total/NA
Butyl benzyl phthalate	0.20	J B	2.5	0.12	ug/L	1		8270C LL	Total/NA
Arsenic	0.0043	J	0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.084	J B	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.14		0.020	0.0022	mg/L	1		6010B	Total/NA
Copper	0.0049	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.019		0.010	0.00084	mg/L	1		6010B	Total/NA
Zinc	0.012	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: MW-6

Lab Sample ID: 600-54909-9

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
Methylene Chloride	9.1	J	250	7.5	ug/L	50		8260B	Total/NA
Toluene	65		50	7.5	ug/L	50		8260B	Total/NA
Ethylbenzene	580		50	5.5	ug/L	50		8260B	Total/NA
Xylenes, Total	1400		50	13	ug/L	50		8260B	Total/NA
Styrene	5.1	J	50	3.5	ug/L	50		8260B	Total/NA
Isopropylbenzene	42	J	50	9.0	ug/L	50		8260B	Total/NA
N-Propylbenzene	58		50	7.5	ug/L	50		8260B	Total/NA
1,3,5-Trimethylbenzene	110		50	5.0	ug/L	50		8260B	Total/NA
1,2,4-Trimethylbenzene	370		50	7.0	ug/L	50		8260B	Total/NA
n-Butylbenzene	12	J	50	8.0	ug/L	50		8260B	Total/NA
Naphthalene	330		50	16	ug/L	50		8260B	Total/NA
Benzene - DL	13000		1000	80	ug/L	1000		8260B	Total/NA
Phenol	13		7.4	0.20	ug/L	5		8270C LL	Total/NA
2,4-Dimethylphenol	53		12	1.5	ug/L	5		8270C LL	Total/NA
2-Methylnaphthalene	77		7.4	0.34	ug/L	5		8270C LL	Total/NA
Acenaphthene	0.75	J	4.9	0.39	ug/L	5		8270C LL	Total/NA
Phenanthrene	0.92	J	7.4	0.30	ug/L	5		8270C LL	Total/NA
C6-C12	9.6		2.0	0.81	mg/L	1		TX 1005	Total/NA
>C12-C28	4.6		2.0	0.94	mg/L	1		TX 1005	Total/NA
C6-C35	14		2.0	1.5	mg/L	1		TX 1005	Total/NA
Arsenic	0.067		0.010	0.0033	mg/L	1		6010B	Total/NA
Aluminum	0.053	J B	0.50	0.022	mg/L	1		6010B	Total/NA
Barium	0.41		0.020	0.0022	mg/L	1		6010B	Total/NA
Cobalt	0.0012	J	0.010	0.00063	mg/L	1		6010B	Total/NA
Chromium	0.0023	J	0.010	0.0016	mg/L	1		6010B	Total/NA
Copper	0.0029	J	0.010	0.0015	mg/L	1		6010B	Total/NA
Manganese	0.72		0.010	0.00084	mg/L	1		6010B	Total/NA
Nickel	0.0055	J	0.010	0.0018	mg/L	1		6010B	Total/NA
Lead	0.011		0.010	0.0029	mg/L	1		6010B	Total/NA
Vanadium	0.0042	J	0.010	0.0017	mg/L	1		6010B	Total/NA
Zinc	0.012	J B	0.030	0.0022	mg/L	1		6010B	Total/NA

Client Sample ID: TRIP BLANK

Lab Sample ID: 600-54909-10

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	Dil Fac	D	Method	Prep Type
4-Methyl-2-pentanone (MIBK)	0.47	J	2.0	0.45	ug/L	1		8260B	Total/NA

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-1

Date Collected: 05/11/12 07:15

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-1

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 20:47	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 20:47	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 20:47	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 20:47	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 20:47	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 20:47	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 20:47	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 20:47	1
Methyl tert-butyl ether	9.0		1.0	0.12	ug/L			05/15/12 20:47	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 20:47	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 20:47	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 20:47	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 20:47	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 20:47	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 20:47	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 20:47	1
Benzene	11		1.0	0.080	ug/L			05/15/12 20:47	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 20:47	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 20:47	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 20:47	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 20:47	1
1,2-Dichloropropane	5.9		1.0	0.16	ug/L			05/15/12 20:47	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 20:47	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 20:47	1
Chloroform	0.33	J	1.0	0.13	ug/L			05/15/12 20:47	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 20:47	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 20:47	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 20:47	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 20:47	1
Toluene	1.2		1.0	0.15	ug/L			05/15/12 20:47	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 20:47	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 20:47	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 20:47	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 20:47	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 20:47	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 20:47	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 20:47	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 20:47	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 20:47	1
Ethylbenzene	0.47	J	1.0	0.11	ug/L			05/15/12 20:47	1
Xylenes, Total	2.6		1.0	0.26	ug/L			05/15/12 20:47	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 20:47	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 20:47	1
Isopropylbenzene	29		1.0	0.18	ug/L			05/15/12 20:47	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 20:47	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 20:47	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 20:47	1
N-Propylbenzene	31		1.0	0.15	ug/L			05/15/12 20:47	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 20:47	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 20:47	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 20:47	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-1

Lab Sample ID: 600-54909-1

Date Collected: 05/11/12 07:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
tert-Butylbenzene	0.94	J	1.0	0.080	ug/L			05/15/12 20:47	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 20:47	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 20:47	1
sec-Butylbenzene	2.9		1.0	0.12	ug/L			05/15/12 20:47	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 20:47	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 20:47	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 20:47	1
n-Butylbenzene	2.7		1.0	0.16	ug/L			05/15/12 20:47	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 20:47	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 20:47	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 20:47	1
Naphthalene	0.78	J	1.0	0.32	ug/L			05/15/12 20:47	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		05/15/12 20:47	1
Dibromofluoromethane	80		62 - 130		05/15/12 20:47	1
Toluene-d8 (Surr)	92		70 - 130		05/15/12 20:47	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		05/15/12 20:47	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
Phenol	0.039	U	1.5	0.039	ug/L		05/16/12 15:10	05/18/12 10:40	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 10:40	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/16/12 15:10	05/18/12 10:40	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/16/12 15:10	05/18/12 10:40	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/16/12 15:10	05/18/12 10:40	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/16/12 15:10	05/18/12 10:40	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/16/12 15:10	05/18/12 10:40	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 10:40	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 10:40	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 10:40	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/16/12 15:10	05/18/12 10:40	1
2-Methylnaphthalene	3.4		1.5	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 10:40	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 10:40	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 10:40	1
Acenaphthene	0.44	J	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/16/12 15:10	05/18/12 10:40	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-1

Lab Sample ID: 600-54909-1

Date Collected: 05/11/12 07:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dibenzofuran	0.93	J	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 10:40	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 10:40	1
Fluorene	1.2	J	1.5	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/18/12 10:40	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/16/12 15:10	05/18/12 10:40	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 10:40	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 10:40	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/16/12 15:10	05/18/12 10:40	1
Phenanthrene	0.35	J	1.5	0.059	ug/L		05/16/12 15:10	05/18/12 10:40	1
Anthracene	0.16	J	0.99	0.049	ug/L		05/16/12 15:10	05/18/12 10:40	1
Di-n-butyl phthalate	0.31	J	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 10:40	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 10:40	1
Butyl benzyl phthalate	0.57	J B	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 10:40	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
Bis(2-ethylhexyl) phthalate	0.40	J	2.5	0.36	ug/L		05/16/12 15:10	05/18/12 10:40	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 10:40	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 10:40	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	23		10 - 94	05/16/12 15:10	05/18/12 10:40	1
2,4,6-Tribromophenol	88		10 - 123	05/16/12 15:10	05/18/12 10:40	1
2-Fluorobiphenyl	79		43 - 116	05/16/12 15:10	05/18/12 10:40	1
2-Fluorophenol	38		10 - 100	05/16/12 15:10	05/18/12 10:40	1
Nitrobenzene-d5	74		35 - 114	05/16/12 15:10	05/18/12 10:40	1
Terphenyl-d14	77		33 - 141	05/16/12 15:10	05/18/12 10:40	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.81	U	2.0	0.81	mg/L		05/18/12 09:26	05/18/12 18:06	1
>C12-C28	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 18:06	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 18:06	1
C6-C35	1.5	U	2.0	1.5	mg/L		05/18/12 09:26	05/18/12 18:06	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	100		70 - 130	05/18/12 09:26	05/18/12 18:06	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.030		0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 10:56	1
Aluminum	0.077	J B	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 10:56	1
Barium	0.51		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 10:56	1
Cobalt	0.0026	J	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 10:56	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-1

Lab Sample ID: 600-54909-1

Date Collected: 05/11/12 07:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 10:56	1
Copper	0.0030	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 10:56	1
Manganese	0.27		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 10:56	1
Nickel	0.0087	J	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 10:56	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 10:56	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 10:56	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 10:56	1
Vanadium	0.0017	U	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 10:56	1
Zinc	0.0058	J B	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 10:56	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 12:52	1

Client Sample ID: DUP-1

Lab Sample ID: 600-54909-2

Date Collected: 05/11/12 07:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 21:16	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 21:16	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 21:16	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 21:16	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 21:16	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 21:16	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 21:16	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 21:16	1
Methyl tert-butyl ether	9.5		1.0	0.12	ug/L			05/15/12 21:16	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 21:16	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 21:16	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 21:16	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 21:16	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 21:16	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 21:16	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 21:16	1
Benzene	12		1.0	0.080	ug/L			05/15/12 21:16	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 21:16	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 21:16	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 21:16	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 21:16	1
1,2-Dichloropropane	6.9		1.0	0.16	ug/L			05/15/12 21:16	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 21:16	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 21:16	1
Chloroform	0.54	J	1.0	0.13	ug/L			05/15/12 21:16	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 21:16	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 21:16	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 21:16	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 21:16	1
Toluene	1.4		1.0	0.15	ug/L			05/15/12 21:16	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 21:16	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: DUP-1

Lab Sample ID: 600-54909-2

Date Collected: 05/11/12 07:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 21:16	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 21:16	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 21:16	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 21:16	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 21:16	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 21:16	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 21:16	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 21:16	1
Ethylbenzene	0.51	J	1.0	0.11	ug/L			05/15/12 21:16	1
Xylenes, Total	2.8		1.0	0.26	ug/L			05/15/12 21:16	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 21:16	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 21:16	1
Isopropylbenzene	35		1.0	0.18	ug/L			05/15/12 21:16	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 21:16	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 21:16	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 21:16	1
N-Propylbenzene	38		1.0	0.15	ug/L			05/15/12 21:16	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 21:16	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 21:16	1
1,3,5-Trimethylbenzene	0.10	J	1.0	0.10	ug/L			05/15/12 21:16	1
tert-Butylbenzene	1.2		1.0	0.080	ug/L			05/15/12 21:16	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 21:16	1
1,2,4-Trimethylbenzene	0.14	J	1.0	0.14	ug/L			05/15/12 21:16	1
sec-Butylbenzene	3.8		1.0	0.12	ug/L			05/15/12 21:16	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 21:16	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 21:16	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 21:16	1
n-Butylbenzene	3.4		1.0	0.16	ug/L			05/15/12 21:16	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 21:16	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 21:16	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 21:16	1
Naphthalene	0.80	J	1.0	0.32	ug/L			05/15/12 21:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		05/15/12 21:16	1
Dibromofluoromethane	81		62 - 130		05/15/12 21:16	1
Toluene-d8 (Surr)	90		70 - 130		05/15/12 21:16	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		05/15/12 21:16	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
Phenol	0.039	U	1.5	0.039	ug/L		05/16/12 15:10	05/18/12 11:06	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 11:06	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 11:06	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/16/12 15:10	05/18/12 11:06	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/16/12 15:10	05/18/12 11:06	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/16/12 15:10	05/18/12 11:06	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/16/12 15:10	05/18/12 11:06	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/16/12 15:10	05/18/12 11:06	1
Nitrobenzene	1.3	J	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 11:06	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: DUP-1

Lab Sample ID: 600-54909-2

Date Collected: 05/11/12 07:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 11:06	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/16/12 15:10	05/18/12 11:06	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 11:06	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 11:06	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 11:06	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/16/12 15:10	05/18/12 11:06	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/16/12 15:10	05/18/12 11:06	1
2-Methylnaphthalene	3.3		1.5	0.069	ug/L		05/16/12 15:10	05/18/12 11:06	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 11:06	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 11:06	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 11:06	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 11:06	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 11:06	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/16/12 15:10	05/18/12 11:06	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 11:06	1
Acenaphthene	0.32	J	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/16/12 15:10	05/18/12 11:06	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/16/12 15:10	05/18/12 11:06	1
Dibenzofuran	0.94	J	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 11:06	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/18/12 11:06	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 11:06	1
Fluorene	1.1	J	1.5	0.069	ug/L		05/16/12 15:10	05/18/12 11:06	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/18/12 11:06	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/16/12 15:10	05/18/12 11:06	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 11:06	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 11:06	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/16/12 15:10	05/18/12 11:06	1
Phenanthrene	0.31	J	1.5	0.059	ug/L		05/16/12 15:10	05/18/12 11:06	1
Anthracene	0.049	U	0.99	0.049	ug/L		05/16/12 15:10	05/18/12 11:06	1
Di-n-butyl phthalate	0.29	J	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 11:06	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 11:06	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 11:06	1
Butyl benzyl phthalate	0.47	J B	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 11:06	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/16/12 15:10	05/18/12 11:06	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
Bis(2-ethylhexyl) phthalate	0.36	U	2.5	0.36	ug/L		05/16/12 15:10	05/18/12 11:06	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/16/12 15:10	05/18/12 11:06	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 11:06	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/16/12 15:10	05/18/12 11:06	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 11:06	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 11:06	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	22		10 - 94				05/16/12 15:10	05/18/12 11:06	1
2,4,6-Tribromophenol	82		10 - 123				05/16/12 15:10	05/18/12 11:06	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: DUP-1

Lab Sample ID: 600-54909-2

Date Collected: 05/11/12 07:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	74		43 - 116	05/16/12 15:10	05/18/12 11:06	1
2-Fluorophenol	34		10 - 100	05/16/12 15:10	05/18/12 11:06	1
Nitrobenzene-d5	67		35 - 114	05/16/12 15:10	05/18/12 11:06	1
Terphenyl-d14	75		33 - 141	05/16/12 15:10	05/18/12 11:06	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.81	U	1.9	0.81	mg/L		05/18/12 09:26	05/18/12 18:41	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 18:41	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 18:41	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/18/12 09:26	05/18/12 18:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	92		70 - 130	05/18/12 09:26	05/18/12 18:41	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.032		0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 10:58	1
Aluminum	0.040	J B	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 10:58	1
Barium	0.51		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 10:58	1
Cobalt	0.0059	J	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 10:58	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 10:58	1
Copper	0.0041	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 10:58	1
Manganese	0.27		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 10:58	1
Nickel	0.017		0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 10:58	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 10:58	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 10:58	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 10:58	1
Vanadium	0.0017	U	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 10:58	1
Zinc	0.0069	J B	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 10:58	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 12:54	1

Client Sample ID: MW-5

Lab Sample ID: 600-54909-3

Date Collected: 05/11/12 08:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.60	U	5.0	0.60	ug/L			05/15/12 15:05	5
Chloromethane	0.90	U	10	0.90	ug/L			05/15/12 15:05	5
Vinyl chloride	0.55	U	10	0.55	ug/L			05/15/12 15:05	5
Bromomethane	1.3	U	10	1.3	ug/L			05/15/12 15:05	5
Chloroethane	0.40	U	10	0.40	ug/L			05/15/12 15:05	5
Trichlorofluoromethane	0.40	U	5.0	0.40	ug/L			05/15/12 15:05	5
1,1-Dichloroethene	0.95	U	5.0	0.95	ug/L			05/15/12 15:05	5
trans-1,2-Dichloroethene	0.45	U	5.0	0.45	ug/L			05/15/12 15:05	5
Acetone	5.0	U	25	5.0	ug/L			05/15/12 15:05	5
Iodomethane	10	U	10	10	ug/L			05/15/12 15:05	5
Carbon disulfide	1.2	U	10	1.2	ug/L			05/15/12 15:05	5

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-5

Lab Sample ID: 600-54909-3

Date Collected: 05/11/12 08:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.75	U	25	0.75	ug/L			05/15/12 15:05	5
cis-1,2-Dichloroethene	0.30	U	5.0	0.30	ug/L			05/15/12 15:05	5
2-Butanone (MEK)	3.8	U	10	3.8	ug/L			05/15/12 15:05	5
Carbon tetrachloride	0.75	U	5.0	0.75	ug/L			05/15/12 15:05	5
Benzene	160		5.0	0.40	ug/L			05/15/12 15:05	5
1,2-Dichloroethane	0.70	U	5.0	0.70	ug/L			05/15/12 15:05	5
Trichloroethene	0.90	U	5.0	0.90	ug/L			05/15/12 15:05	5
1,1,1-Trichloroethane	0.75	U	5.0	0.75	ug/L			05/15/12 15:05	5
1,1-Dichloroethane	0.55	U	5.0	0.55	ug/L			05/15/12 15:05	5
1,2-Dichloropropane	1.7 J		5.0	0.80	ug/L			05/15/12 15:05	5
2,2-Dichloropropane	0.65	U	5.0	0.65	ug/L			05/15/12 15:05	5
Dibromomethane	2.6	U	5.0	2.6	ug/L			05/15/12 15:05	5
Chloroform	1.4 J		5.0	0.65	ug/L			05/15/12 15:05	5
Bromodichloromethane	0.80	U	5.0	0.80	ug/L			05/15/12 15:05	5
1,1-Dichloropropene	1.1	U	5.0	1.1	ug/L			05/15/12 15:05	5
cis-1,3-Dichloropropene	0.90	U	5.0	0.90	ug/L			05/15/12 15:05	5
4-Methyl-2-pentanone (MIBK)	2.3	U	10	2.3	ug/L			05/15/12 15:05	5
Toluene	1.8 J		5.0	0.75	ug/L			05/15/12 15:05	5
trans-1,3-Dichloropropene	1.1	U	5.0	1.1	ug/L			05/15/12 15:05	5
1,1,2-Trichloroethane	1.4	U	5.0	1.4	ug/L			05/15/12 15:05	5
Tetrachloroethene	0.65	U	5.0	0.65	ug/L			05/15/12 15:05	5
1,3-Dichloropropane	1.1	U	5.0	1.1	ug/L			05/15/12 15:05	5
2-Hexanone	1.8	U	10	1.8	ug/L			05/15/12 15:05	5
Dibromochloromethane	0.75	U	5.0	0.75	ug/L			05/15/12 15:05	5
1,2-Dibromoethane	0.90	U	5.0	0.90	ug/L			05/15/12 15:05	5
Chlorobenzene	0.60	U	5.0	0.60	ug/L			05/15/12 15:05	5
1,1,1,2-Tetrachloroethane	0.90	U	5.0	0.90	ug/L			05/15/12 15:05	5
Ethylbenzene	3.0 J		5.0	0.55	ug/L			05/15/12 15:05	5
Xylenes, Total	4.9 J		5.0	1.3	ug/L			05/15/12 15:05	5
Styrene	0.35	U	5.0	0.35	ug/L			05/15/12 15:05	5
Bromoform	0.95	U	5.0	0.95	ug/L			05/15/12 15:05	5
Isopropylbenzene	19		5.0	0.90	ug/L			05/15/12 15:05	5
Bromobenzene	0.95	U	5.0	0.95	ug/L			05/15/12 15:05	5
1,2,3-Trichloropropane	1.5	U	5.0	1.5	ug/L			05/15/12 15:05	5
1,1,2,2-Tetrachloroethane	1.1	U	5.0	1.1	ug/L			05/15/12 15:05	5
N-Propylbenzene	23		5.0	0.75	ug/L			05/15/12 15:05	5
2-Chlorotoluene	0.65	U	5.0	0.65	ug/L			05/15/12 15:05	5
4-Chlorotoluene	0.70	U	5.0	0.70	ug/L			05/15/12 15:05	5
1,3,5-Trimethylbenzene	0.50	U	5.0	0.50	ug/L			05/15/12 15:05	5
tert-Butylbenzene	0.97 J		5.0	0.40	ug/L			05/15/12 15:05	5
4-Isopropyltoluene	0.50	U	5.0	0.50	ug/L			05/15/12 15:05	5
1,2,4-Trimethylbenzene	2.2 J		5.0	0.70	ug/L			05/15/12 15:05	5
sec-Butylbenzene	3.4 J		5.0	0.60	ug/L			05/15/12 15:05	5
1,3-Dichlorobenzene	0.65	U	5.0	0.65	ug/L			05/15/12 15:05	5
1,4-Dichlorobenzene	0.55	U	5.0	0.55	ug/L			05/15/12 15:05	5
1,2-Dichlorobenzene	0.50	U	5.0	0.50	ug/L			05/15/12 15:05	5
n-Butylbenzene	4.5 J		5.0	0.80	ug/L			05/15/12 15:05	5
1,2-Dibromo-3-Chloropropane	4.1	U	5.0	4.1	ug/L			05/15/12 15:05	5
1,2,4-Trichlorobenzene	1.6	U	5.0	1.6	ug/L			05/15/12 15:05	5
Hexachlorobutadiene	0.85	U	5.0	0.85	ug/L			05/15/12 15:05	5
Naphthalene	15		5.0	1.6	ug/L			05/15/12 15:05	5

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-5

Lab Sample ID: 600-54909-3

Date Collected: 05/11/12 08:15

Matrix: Water

Date Received: 05/12/12 09:42

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		05/15/12 15:05	5
Dibromofluoromethane	81		62 - 130		05/15/12 15:05	5
Toluene-d8 (Surr)	87		70 - 130		05/15/12 15:05	5
1,2-Dichloroethane-d4 (Surr)	74		50 - 134		05/15/12 15:05	5

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tert-butyl ether	460		50	6.0	ug/L			05/15/12 04:23	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139		05/15/12 04:23	50
Dibromofluoromethane	80		62 - 130		05/15/12 04:23	50
Toluene-d8 (Surr)	88		70 - 130		05/15/12 04:23	50
1,2-Dichloroethane-d4 (Surr)	75		50 - 134		05/15/12 04:23	50

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Phenol	1.2	J	7.4	0.20	ug/L		05/16/12 15:10	05/18/12 11:32	5
Bis(2-chloroethyl)ether	0.74	U	7.4	0.74	ug/L		05/16/12 15:10	05/18/12 11:32	5
2-Chlorophenol	0.64	U	9.9	0.64	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzyl alcohol	0.84	U	27	0.84	ug/L		05/16/12 15:10	05/18/12 11:32	5
Bis(2-chloroisopropyl) ether	2.0	U	7.4	2.0	ug/L		05/16/12 15:10	05/18/12 11:32	5
3 & 4 Methylphenol	0.99	U	4.9	0.99	ug/L		05/16/12 15:10	05/18/12 11:32	5
N-Nitrosodi-n-propylamine	0.49	U	12	0.49	ug/L		05/16/12 15:10	05/18/12 11:32	5
Hexachloroethane	0.49	U	9.9	0.49	ug/L		05/16/12 15:10	05/18/12 11:32	5
Nitrobenzene	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 11:32	5
Isophorone	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 11:32	5
2-Nitrophenol	1.1	U	4.9	1.1	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4-Dimethylphenol	1.5	U	12	1.5	ug/L		05/16/12 15:10	05/18/12 11:32	5
Bis(2-chloroethoxy)methane	0.64	U	7.4	0.64	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4-Dichlorophenol	0.74	U	12	0.74	ug/L		05/16/12 15:10	05/18/12 11:32	5
4-Chloroaniline	1.0	U	4.9	1.0	ug/L		05/16/12 15:10	05/18/12 11:32	5
4-Chloro-3-methylphenol	0.84	U	4.9	0.84	ug/L		05/16/12 15:10	05/18/12 11:32	5
2-Methylnaphthalene	260		7.4	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5
Hexachlorocyclopentadiene	0.64	U	7.4	0.64	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4,6-Trichlorophenol	0.89	U	9.9	0.89	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4,5-Trichlorophenol	1.2	U	9.9	1.2	ug/L		05/16/12 15:10	05/18/12 11:32	5
2-Chloronaphthalene	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
2-Nitroaniline	0.94	U	12	0.94	ug/L		05/16/12 15:10	05/18/12 11:32	5
Dimethyl phthalate	0.34	U	12	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5
Acenaphthylene	0.30	U	4.9	0.30	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,6-Dinitrotoluene	0.39	U	4.9	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
3-Nitroaniline	0.79	U	12	0.79	ug/L		05/16/12 15:10	05/18/12 11:32	5
Acenaphthene	2.3	J	4.9	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4-Dinitrophenol	1.9	U	25	1.9	ug/L		05/16/12 15:10	05/18/12 11:32	5
4-Nitrophenol	2.8	U	12	2.8	ug/L		05/16/12 15:10	05/18/12 11:32	5
Dibenzofuran	1.2	J	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
2,4-Dinitrotoluene	0.64	U	7.4	0.64	ug/L		05/16/12 15:10	05/18/12 11:32	5
Diethyl phthalate	7.4	U	12	7.4	ug/L		05/16/12 15:10	05/18/12 11:32	5
4-Chlorophenyl phenyl ether	0.49	U	7.4	0.49	ug/L		05/16/12 15:10	05/18/12 11:32	5
Fluorene	4.2	J	7.4	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-5

Lab Sample ID: 600-54909-3

Date Collected: 05/11/12 08:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Nitroaniline	1.2	U	12	1.2	ug/L		05/16/12 15:10	05/18/12 11:32	5
4,6-Dinitro-2-methylphenol	4.1	U	12	4.1	ug/L		05/16/12 15:10	05/18/12 11:32	5
4-Bromophenyl phenyl ether	0.49	U	7.4	0.49	ug/L		05/16/12 15:10	05/18/12 11:32	5
Hexachlorobenzene	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 11:32	5
Pentachlorophenol	3.0	U	12	3.0	ug/L		05/16/12 15:10	05/18/12 11:32	5
Phenanthrene	2.0	J	7.4	0.30	ug/L		05/16/12 15:10	05/18/12 11:32	5
Anthracene	0.25	U	4.9	0.25	ug/L		05/16/12 15:10	05/18/12 11:32	5
Di-n-butyl phthalate	0.54	U	12	0.54	ug/L		05/16/12 15:10	05/18/12 11:32	5
Fluoranthene	0.34	U	12	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5
Pyrene	0.54	U	9.9	0.54	ug/L		05/16/12 15:10	05/18/12 11:32	5
Butyl benzyl phthalate	0.59	U	12	0.59	ug/L		05/16/12 15:10	05/18/12 11:32	5
3,3'-Dichlorobenzidine	0.89	U	49	0.89	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzo[a]anthracene	0.39	U	9.9	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Bis(2-ethylhexyl) phthalate	1.8	U	12	1.8	ug/L		05/16/12 15:10	05/18/12 11:32	5
Chrysene	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Di-n-octyl phthalate	0.79	U	25	0.79	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzo[b]fluoranthene	0.34	U	9.9	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzo[k]fluoranthene	0.44	U	9.9	0.44	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzo[a]pyrene	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Indeno[1,2,3-cd]pyrene	0.34	U	9.9	0.34	ug/L		05/16/12 15:10	05/18/12 11:32	5
Dibenz(a,h)anthracene	0.39	U	12	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5
Benzo[g,h,i]perylene	0.39	U	12	0.39	ug/L		05/16/12 15:10	05/18/12 11:32	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	22		10 - 94	05/16/12 15:10	05/18/12 11:32	5
2,4,6-Tribromophenol	87		10 - 123	05/16/12 15:10	05/18/12 11:32	5
2-Fluorobiphenyl	83		43 - 116	05/16/12 15:10	05/18/12 11:32	5
2-Fluorophenol	35		10 - 100	05/16/12 15:10	05/18/12 11:32	5
Nitrobenzene-d5	92		35 - 114	05/16/12 15:10	05/18/12 11:32	5
Terphenyl-d14	78		33 - 141	05/16/12 15:10	05/18/12 11:32	5

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	2.8		1.9	0.81	mg/L		05/18/12 09:26	05/18/12 19:16	1
>C12-C28	16		1.9	0.93	mg/L		05/18/12 09:26	05/18/12 19:16	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 19:16	1
C6-C35	20		1.9	1.5	mg/L		05/18/12 09:26	05/18/12 19:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	108		70 - 130	05/18/12 09:26	05/18/12 19:16	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.19		0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:01	1
Aluminum	0.034	J B	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:01	1
Barium	0.45		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:01	1
Cobalt	0.0041	J	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:01	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:01	1
Copper	0.0057	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:01	1
Manganese	0.49		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:01	1
Nickel	0.0045	J	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:01	1
Lead	0.0044	J	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:01	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-5

Lab Sample ID: 600-54909-3

Date Collected: 05/11/12 08:15

Matrix: Water

Date Received: 05/12/12 09:42

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:01	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:01	1
Vanadium	0.0017	U	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:01	1
Zinc	0.074	B	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:01	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 12:56	1

Client Sample ID: MW-11

Lab Sample ID: 600-54909-4

Date Collected: 05/11/12 09:20

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 02:58	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 02:58	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 02:58	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 02:58	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 02:58	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 02:58	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 02:58	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 02:58	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 02:58	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 02:58	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 02:58	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 02:58	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 02:58	1
cis-1,2-Dichloroethene	0.57	J	1.0	0.060	ug/L			05/15/12 02:58	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 02:58	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 02:58	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 02:58	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 02:58	1
Trichloroethene	2.0		1.0	0.18	ug/L			05/15/12 02:58	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 02:58	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 02:58	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 02:58	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 02:58	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 02:58	1
Chloroform	0.35	J	1.0	0.13	ug/L			05/15/12 02:58	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 02:58	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:58	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 02:58	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 02:58	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 02:58	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 02:58	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 02:58	1
Tetrachloroethene	3.8		1.0	0.13	ug/L			05/15/12 02:58	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 02:58	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 02:58	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 02:58	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-11

Lab Sample ID: 600-54909-4

Date Collected: 05/11/12 09:20

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 02:58	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 02:58	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 02:58	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 02:58	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 02:58	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 02:58	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 02:58	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 02:58	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 02:58	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 02:58	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 02:58	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 02:58	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 02:58	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 02:58	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 02:58	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 02:58	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 02:58	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 02:58	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 02:58	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 02:58	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 02:58	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 02:58	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 02:58	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 02:58	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 02:58	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 02:58	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 02:58	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94		67 - 139		05/15/12 02:58	1
Dibromofluoromethane	81		62 - 130		05/15/12 02:58	1
Toluene-d8 (Surr)	87		70 - 130		05/15/12 02:58	1
1,2-Dichloroethane-d4 (Surr)	77		50 - 134		05/15/12 02:58	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
Phenol	0.040	U	1.5	0.040	ug/L		05/16/12 15:10	05/18/12 12:52	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 12:52	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 12:52	1
Benzyl alcohol	0.17	U	5.5	0.17	ug/L		05/16/12 15:10	05/18/12 12:52	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/16/12 15:10	05/18/12 12:52	1
3 & 4 Methylphenol	0.20	U	1.0	0.20	ug/L		05/16/12 15:10	05/18/12 12:52	1
N-Nitrosodi-n-propylamine	0.10	U	2.5	0.10	ug/L		05/16/12 15:10	05/18/12 12:52	1
Hexachloroethane	0.10	U	2.0	0.10	ug/L		05/16/12 15:10	05/18/12 12:52	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 12:52	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 12:52	1
2-Nitrophenol	0.22	U	1.0	0.22	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 12:52	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4-Dichlorophenol	0.29	J	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 12:52	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-11

Lab Sample ID: 600-54909-4

Date Collected: 05/11/12 09:20

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chloroaniline	0.21	U	1.0	0.21	ug/L		05/16/12 15:10	05/18/12 12:52	1
4-Chloro-3-methylphenol	0.17	U	1.0	0.17	ug/L		05/16/12 15:10	05/18/12 12:52	1
2-Methylnaphthalene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/18/12 12:52	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 12:52	1
2-Chloronaphthalene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 12:52	1
Dimethyl phthalate	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/18/12 12:52	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,6-Dinitrotoluene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 12:52	1
Acenaphthene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4-Dinitrophenol	0.39	U	5.0	0.39	ug/L		05/16/12 15:10	05/18/12 12:52	1
4-Nitrophenol	0.56	U	2.5	0.56	ug/L		05/16/12 15:10	05/18/12 12:52	1
Dibenzofuran	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 12:52	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/18/12 12:52	1
4-Chlorophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/16/12 15:10	05/18/12 12:52	1
Fluorene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/18/12 12:52	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/18/12 12:52	1
4,6-Dinitro-2-methylphenol	0.83	U	2.5	0.83	ug/L		05/16/12 15:10	05/18/12 12:52	1
4-Bromophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/16/12 15:10	05/18/12 12:52	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 12:52	1
Pentachlorophenol	0.61	U	2.5	0.61	ug/L		05/16/12 15:10	05/18/12 12:52	1
Phenanthrene	0.060	U	1.5	0.060	ug/L		05/16/12 15:10	05/18/12 12:52	1
Anthracene	0.050	U	1.0	0.050	ug/L		05/16/12 15:10	05/18/12 12:52	1
Di-n-butyl phthalate	0.11	U	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 12:52	1
Fluoranthene	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/18/12 12:52	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 12:52	1
Butyl benzyl phthalate	0.12	U	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 12:52	1
3,3'-Dichlorobenzidine	0.18	U	10	0.18	ug/L		05/16/12 15:10	05/18/12 12:52	1
Benzo[a]anthracene	0.080	U	2.0	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
Bis(2-ethylhexyl) phthalate	0.37	U	2.5	0.37	ug/L		05/16/12 15:10	05/18/12 12:52	1
Chrysene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/16/12 15:10	05/18/12 12:52	1
Benzo[b]fluoranthene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/18/12 12:52	1
Benzo[k]fluoranthene	0.090	U	2.0	0.090	ug/L		05/16/12 15:10	05/18/12 12:52	1
Benzo[a]pyrene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
Indeno[1,2,3-cd]pyrene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/18/12 12:52	1
Dibenz(a,h)anthracene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
Benzo[g,h,i]perylene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/18/12 12:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	16		10 - 94				05/16/12 15:10	05/18/12 12:52	1
2,4,6-Tribromophenol	69		10 - 123				05/16/12 15:10	05/18/12 12:52	1
2-Fluorobiphenyl	60		43 - 116				05/16/12 15:10	05/18/12 12:52	1
2-Fluorophenol	26		10 - 100				05/16/12 15:10	05/18/12 12:52	1
Nitrobenzene-d5	59		35 - 114				05/16/12 15:10	05/18/12 12:52	1
Terphenyl-d14	78		33 - 141				05/16/12 15:10	05/18/12 12:52	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-11

Lab Sample ID: 600-54909-4

Date Collected: 05/11/12 09:20

Matrix: Water

Date Received: 05/12/12 09:42

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.82	U	2.0	0.82	mg/L		05/18/12 09:26	05/18/12 20:59	1
>C12-C28	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 20:59	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 20:59	1
C6-C35	1.5	U	2.0	1.5	mg/L		05/18/12 09:26	05/18/12 20:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
<i>o</i> -Terphenyl	93		70 - 130				05/18/12 09:26	05/18/12 20:59	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:10	1
Aluminum	0.022	U	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:10	1
Barium	0.13		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:10	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:10	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:10	1
Copper	0.0022	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:10	1
Manganese	0.011		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:10	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:10	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:10	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:10	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:10	1
Vanadium	0.0074	J	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:10	1
Zinc	0.0044	J B	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:10	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 13:01	1

Client Sample ID: MW-10

Lab Sample ID: 600-54909-5

Date Collected: 05/11/12 10:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 06:17	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 06:17	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 06:17	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 06:17	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 06:17	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 06:17	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 06:17	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 06:17	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 06:17	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 06:17	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 06:17	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 06:17	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 06:17	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 06:17	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 06:17	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 06:17	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 06:17	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 06:17	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-10

Lab Sample ID: 600-54909-5

Date Collected: 05/11/12 10:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 06:17	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 06:17	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 06:17	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 06:17	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 06:17	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 06:17	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 06:17	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 06:17	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 06:17	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 06:17	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 06:17	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 06:17	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 06:17	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 06:17	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 06:17	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 06:17	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 06:17	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 06:17	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 06:17	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 06:17	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 06:17	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 06:17	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 06:17	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 06:17	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 06:17	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 06:17	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 06:17	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 06:17	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 06:17	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 06:17	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 06:17	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 06:17	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 06:17	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 06:17	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 06:17	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 06:17	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 06:17	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 06:17	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 06:17	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 06:17	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 06:17	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 06:17	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 06:17	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 06:17	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 06:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		67 - 139					05/15/12 06:17	1
Dibromofluoromethane	80		62 - 130					05/15/12 06:17	1
Toluene-d8 (Surr)	88		70 - 130					05/15/12 06:17	1
1,2-Dichloroethane-d4 (Surr)	79		50 - 134					05/15/12 06:17	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-10

Lab Sample ID: 600-54909-5

Date Collected: 05/11/12 10:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
Phenol	0.040	U	1.5	0.040	ug/L		05/16/12 15:10	05/18/12 13:18	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 13:18	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 13:18	1
Benzyl alcohol	0.17	U	5.5	0.17	ug/L		05/16/12 15:10	05/18/12 13:18	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/16/12 15:10	05/18/12 13:18	1
3 & 4 Methylphenol	0.20	U	1.0	0.20	ug/L		05/16/12 15:10	05/18/12 13:18	1
N-Nitrosodi-n-propylamine	0.10	U	2.5	0.10	ug/L		05/16/12 15:10	05/18/12 13:18	1
Hexachloroethane	0.10	U	2.0	0.10	ug/L		05/16/12 15:10	05/18/12 13:18	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:18	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:18	1
2-Nitrophenol	0.22	U	1.0	0.22	ug/L		05/16/12 15:10	05/18/12 13:18	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 13:18	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 13:18	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 13:18	1
4-Chloroaniline	0.21	U	1.0	0.21	ug/L		05/16/12 15:10	05/18/12 13:18	1
4-Chloro-3-methylphenol	0.17	U	1.0	0.17	ug/L		05/16/12 15:10	05/18/12 13:18	1
2-Methylnaphthalene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/18/12 13:18	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 13:18	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 13:18	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 13:18	1
2-Chloronaphthalene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 13:18	1
Dimethyl phthalate	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/18/12 13:18	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		05/16/12 15:10	05/18/12 13:18	1
2,6-Dinitrotoluene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 13:18	1
Acenaphthene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
2,4-Dinitrophenol	0.39	U	5.0	0.39	ug/L		05/16/12 15:10	05/18/12 13:18	1
4-Nitrophenol	0.56	U	2.5	0.56	ug/L		05/16/12 15:10	05/18/12 13:18	1
Dibenzofuran	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 13:18	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/18/12 13:18	1
4-Chlorophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/16/12 15:10	05/18/12 13:18	1
Fluorene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/18/12 13:18	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/18/12 13:18	1
4,6-Dinitro-2-methylphenol	0.83	U	2.5	0.83	ug/L		05/16/12 15:10	05/18/12 13:18	1
4-Bromophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/16/12 15:10	05/18/12 13:18	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:18	1
Pentachlorophenol	0.61	U	2.5	0.61	ug/L		05/16/12 15:10	05/18/12 13:18	1
Phenanthrene	0.060	U	1.5	0.060	ug/L		05/16/12 15:10	05/18/12 13:18	1
Anthracene	0.050	U	1.0	0.050	ug/L		05/16/12 15:10	05/18/12 13:18	1
Di-n-butyl phthalate	0.17	J	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:18	1
Fluoranthene	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/18/12 13:18	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 13:18	1
Butyl benzyl phthalate	0.18	J B	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 13:18	1
3,3'-Dichlorobenzidine	0.18	U	10	0.18	ug/L		05/16/12 15:10	05/18/12 13:18	1
Benzo[a]anthracene	0.080	U	2.0	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
Bis(2-ethylhexyl) phthalate	0.37	U	2.5	0.37	ug/L		05/16/12 15:10	05/18/12 13:18	1
Chrysene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/16/12 15:10	05/18/12 13:18	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-10

Lab Sample ID: 600-54909-5

Date Collected: 05/11/12 10:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/18/12 13:18	1
Benzo[k]fluoranthene	0.090	U	2.0	0.090	ug/L		05/16/12 15:10	05/18/12 13:18	1
Benzo[a]pyrene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
Indeno[1,2,3-cd]pyrene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/18/12 13:18	1
Dibenz(a,h)anthracene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1
Benzo[g,h,i]perylene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/18/12 13:18	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	19		10 - 94	05/16/12 15:10	05/18/12 13:18	1
2,4,6-Tribromophenol	73		10 - 123	05/16/12 15:10	05/18/12 13:18	1
2-Fluorobiphenyl	64		43 - 116	05/16/12 15:10	05/18/12 13:18	1
2-Fluorophenol	30		10 - 100	05/16/12 15:10	05/18/12 13:18	1
Nitrobenzene-d5	60		35 - 114	05/16/12 15:10	05/18/12 13:18	1
Terphenyl-d14	76		33 - 141	05/16/12 15:10	05/18/12 13:18	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.81	U	1.9	0.81	mg/L		05/18/12 09:26	05/18/12 21:34	1
>C12-C28	0.94	U	1.9	0.94	mg/L		05/18/12 09:26	05/18/12 21:34	1
>C28-C35	0.94	U	1.9	0.94	mg/L		05/18/12 09:26	05/18/12 21:34	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/18/12 09:26	05/18/12 21:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	93		70 - 130	05/18/12 09:26	05/18/12 21:34	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:19	1
Aluminum	0.30	J B	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:19	1
Barium	0.11		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:19	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:19	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:19	1
Copper	0.0027	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:19	1
Manganese	0.080		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:19	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:19	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:19	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:19	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:19	1
Vanadium	0.0026	J	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:19	1
Zinc	0.0092	J B	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:19	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000035	U	0.00027	0.000035	mg/L		05/16/12 07:31	05/16/12 13:03	1

Client Sample ID: MW-8

Lab Sample ID: 600-54909-6

Date Collected: 05/11/12 11:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 06:45	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-8

Lab Sample ID: 600-54909-6

Date Collected: 05/11/12 11:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 06:45	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 06:45	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 06:45	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 06:45	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 06:45	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 06:45	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 06:45	1
Methyl tert-butyl ether	0.17	J	1.0	0.12	ug/L			05/15/12 06:45	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 06:45	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 06:45	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 06:45	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 06:45	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 06:45	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 06:45	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 06:45	1
Benzene	0.23	J	1.0	0.080	ug/L			05/15/12 06:45	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 06:45	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 06:45	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 06:45	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 06:45	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 06:45	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 06:45	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 06:45	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 06:45	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 06:45	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 06:45	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 06:45	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 06:45	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 06:45	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 06:45	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 06:45	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 06:45	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 06:45	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 06:45	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 06:45	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 06:45	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 06:45	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 06:45	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 06:45	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 06:45	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 06:45	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 06:45	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 06:45	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 06:45	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 06:45	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 06:45	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 06:45	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 06:45	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 06:45	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 06:45	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 06:45	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-8

Lab Sample ID: 600-54909-6

Date Collected: 05/11/12 11:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 06:45	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 06:45	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 06:45	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 06:45	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 06:45	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 06:45	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 06:45	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 06:45	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 06:45	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 06:45	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 06:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		67 - 139		05/15/12 06:45	1
Dibromofluoromethane	84		62 - 130		05/15/12 06:45	1
Toluene-d8 (Surr)	87		70 - 130		05/15/12 06:45	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		05/15/12 06:45	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
Phenol	0.040	U	1.5	0.040	ug/L		05/16/12 15:10	05/18/12 13:45	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 13:45	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 13:45	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/16/12 15:10	05/18/12 13:45	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/16/12 15:10	05/18/12 13:45	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/16/12 15:10	05/18/12 13:45	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/16/12 15:10	05/18/12 13:45	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/16/12 15:10	05/18/12 13:45	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:45	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:45	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 13:45	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 13:45	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/16/12 15:10	05/18/12 13:45	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/16/12 15:10	05/18/12 13:45	1
2-Methylnaphthalene	0.069	U	1.5	0.069	ug/L		05/16/12 15:10	05/18/12 13:45	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 13:45	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 13:45	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 13:45	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 13:45	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
2,4-Dinitrophenol	0.39	U	5.0	0.39	ug/L		05/16/12 15:10	05/18/12 13:45	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/16/12 15:10	05/18/12 13:45	1
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-8

Lab Sample ID: 600-54909-6

Date Collected: 05/11/12 11:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 13:45	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/18/12 13:45	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 13:45	1
Fluorene	0.069	U	1.5	0.069	ug/L		05/16/12 15:10	05/18/12 13:45	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/18/12 13:45	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/16/12 15:10	05/18/12 13:45	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 13:45	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:45	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/16/12 15:10	05/18/12 13:45	1
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/16/12 15:10	05/18/12 13:45	1
Anthracene	0.050	U	0.99	0.050	ug/L		05/16/12 15:10	05/18/12 13:45	1
Di-n-butyl phthalate	1.5	J	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 13:45	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 13:45	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 13:45	1
Butyl benzyl phthalate	0.12	U	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 13:45	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/16/12 15:10	05/18/12 13:45	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
Bis(2-ethylhexyl) phthalate	0.37	U	2.5	0.37	ug/L		05/16/12 15:10	05/18/12 13:45	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/16/12 15:10	05/18/12 13:45	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 13:45	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/16/12 15:10	05/18/12 13:45	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 13:45	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 13:45	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	19		10 - 94	05/16/12 15:10	05/18/12 13:45	1
2,4,6-Tribromophenol	78		10 - 123	05/16/12 15:10	05/18/12 13:45	1
2-Fluorobiphenyl	69		43 - 116	05/16/12 15:10	05/18/12 13:45	1
2-Fluorophenol	33		10 - 100	05/16/12 15:10	05/18/12 13:45	1
Nitrobenzene-d5	68		35 - 114	05/16/12 15:10	05/18/12 13:45	1
Terphenyl-d14	82		33 - 141	05/16/12 15:10	05/18/12 13:45	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.80	U	1.9	0.80	mg/L		05/18/12 09:26	05/18/12 22:09	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 22:09	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 22:09	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/18/12 09:26	05/18/12 22:09	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	96		70 - 130	05/18/12 09:26	05/18/12 22:09	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0044	J	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:22	1
Aluminum	0.34	J B	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:22	1
Barium	0.30		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:22	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:22	1
Chromium	0.0018	J	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:22	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-8

Lab Sample ID: 600-54909-6

Date Collected: 05/11/12 11:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 6010B - Metals (ICP) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Copper	0.0015	U	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:22	1
Manganese	0.45		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:22	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:22	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:22	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:22	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:22	1
Vanadium	0.0017	U	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:22	1
Zinc	0.0037	J B	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:22	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 13:09	1

Client Sample ID: DUP-2

Lab Sample ID: 600-54909-7

Date Collected: 05/11/12 11:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/15/12 05:48	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 05:48	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 05:48	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 05:48	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 05:48	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 05:48	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 05:48	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 05:48	1
Methyl tert-butyl ether	0.19	J	1.0	0.12	ug/L			05/15/12 05:48	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 05:48	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 05:48	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 05:48	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 05:48	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 05:48	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 05:48	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 05:48	1
Benzene	0.22	J	1.0	0.080	ug/L			05/15/12 05:48	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 05:48	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 05:48	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 05:48	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 05:48	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 05:48	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 05:48	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 05:48	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 05:48	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 05:48	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 05:48	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 05:48	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 05:48	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 05:48	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 05:48	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 05:48	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: DUP-2

Lab Sample ID: 600-54909-7

Date Collected: 05/11/12 11:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 05:48	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 05:48	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 05:48	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 05:48	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 05:48	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 05:48	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 05:48	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 05:48	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 05:48	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 05:48	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 05:48	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 05:48	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 05:48	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 05:48	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 05:48	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 05:48	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 05:48	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 05:48	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 05:48	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 05:48	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 05:48	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 05:48	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 05:48	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 05:48	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 05:48	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 05:48	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 05:48	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 05:48	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 05:48	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 05:48	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 05:48	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		05/15/12 05:48	1
Dibromofluoromethane	78		62 - 130		05/15/12 05:48	1
Toluene-d8 (Surr)	85		70 - 130		05/15/12 05:48	1
1,2-Dichloroethane-d4 (Surr)	81		50 - 134		05/15/12 05:48	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
Phenol	0.040	U	1.5	0.040	ug/L		05/16/12 15:10	05/18/12 14:11	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 14:11	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 14:11	1
Benzyl alcohol	0.17	U	5.5	0.17	ug/L		05/16/12 15:10	05/18/12 14:11	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/16/12 15:10	05/18/12 14:11	1
3 & 4 Methylphenol	0.20	U	1.0	0.20	ug/L		05/16/12 15:10	05/18/12 14:11	1
N-Nitrosodi-n-propylamine	0.10	U	2.5	0.10	ug/L		05/16/12 15:10	05/18/12 14:11	1
Hexachloroethane	0.10	U	2.0	0.10	ug/L		05/16/12 15:10	05/18/12 14:11	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 14:11	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 14:11	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: DUP-2

Lab Sample ID: 600-54909-7

Date Collected: 05/11/12 11:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitrophenol	0.22	U	1.0	0.22	ug/L		05/16/12 15:10	05/18/12 14:11	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 14:11	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 14:11	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 14:11	1
4-Chloroaniline	0.21	U	1.0	0.21	ug/L		05/16/12 15:10	05/18/12 14:11	1
4-Chloro-3-methylphenol	0.17	U	1.0	0.17	ug/L		05/16/12 15:10	05/18/12 14:11	1
2-Methylnaphthalene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/18/12 14:11	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 14:11	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 14:11	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 14:11	1
2-Chloronaphthalene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 14:11	1
Dimethyl phthalate	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/18/12 14:11	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		05/16/12 15:10	05/18/12 14:11	1
2,6-Dinitrotoluene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 14:11	1
Acenaphthene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
2,4-Dinitrophenol	0.39	U	5.0	0.39	ug/L		05/16/12 15:10	05/18/12 14:11	1
4-Nitrophenol	0.56	U	2.5	0.56	ug/L		05/16/12 15:10	05/18/12 14:11	1
Dibenzofuran	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 14:11	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/18/12 14:11	1
4-Chlorophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/16/12 15:10	05/18/12 14:11	1
Fluorene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/18/12 14:11	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/18/12 14:11	1
4,6-Dinitro-2-methylphenol	0.83	U	2.5	0.83	ug/L		05/16/12 15:10	05/18/12 14:11	1
4-Bromophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/16/12 15:10	05/18/12 14:11	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 14:11	1
Pentachlorophenol	0.61	U	2.5	0.61	ug/L		05/16/12 15:10	05/18/12 14:11	1
Phenanthrene	0.060	U	1.5	0.060	ug/L		05/16/12 15:10	05/18/12 14:11	1
Anthracene	0.050	U	1.0	0.050	ug/L		05/16/12 15:10	05/18/12 14:11	1
Di-n-butyl phthalate	1.6	J	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 14:11	1
Fluoranthene	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/18/12 14:11	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 14:11	1
Butyl benzyl phthalate	0.15	J B	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 14:11	1
3,3'-Dichlorobenzidine	0.18	U	10	0.18	ug/L		05/16/12 15:10	05/18/12 14:11	1
Benzo[a]anthracene	0.080	U	2.0	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
Bis(2-ethylhexyl) phthalate	0.37	U	2.5	0.37	ug/L		05/16/12 15:10	05/18/12 14:11	1
Chrysene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/16/12 15:10	05/18/12 14:11	1
Benzo[b]fluoranthene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/18/12 14:11	1
Benzo[k]fluoranthene	0.090	U	2.0	0.090	ug/L		05/16/12 15:10	05/18/12 14:11	1
Benzo[a]pyrene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
Indeno[1,2,3-cd]pyrene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/18/12 14:11	1
Dibenz(a,h)anthracene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
Benzo[g,h,i]perylene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/18/12 14:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Phenol-d6	18		10 - 94				05/16/12 15:10	05/18/12 14:11	1
2,4,6-Tribromophenol	72		10 - 123				05/16/12 15:10	05/18/12 14:11	1
2-Fluorobiphenyl	63		43 - 116				05/16/12 15:10	05/18/12 14:11	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: DUP-2

Date Collected: 05/11/12 11:30

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-7

Matrix: Water

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol	31		10 - 100	05/16/12 15:10	05/18/12 14:11	1
Nitrobenzene-d5	64		35 - 114	05/16/12 15:10	05/18/12 14:11	1
Terphenyl-d14	77		33 - 141	05/16/12 15:10	05/18/12 14:11	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.82	U	2.0	0.82	mg/L		05/18/12 09:26	05/18/12 23:19	1
>C12-C28	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 23:19	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/18/12 23:19	1
C6-C35	1.5	U	2.0	1.5	mg/L		05/18/12 09:26	05/18/12 23:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	95		70 - 130				05/18/12 09:26	05/18/12 23:19	

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0045	J	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:24	1
Aluminum	0.31	J B	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:24	1
Barium	0.30		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:24	1
Cobalt	0.00070	J	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:24	1
Chromium	0.0020	J	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:24	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:24	1
Manganese	0.44		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:24	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:24	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:24	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:24	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:24	1
Vanadium	0.0018	J	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:24	1
Zinc	0.0064	J B	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:24	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 13:11	1

Client Sample ID: MW-7

Date Collected: 05/11/12 12:30

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-8

Matrix: Water

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/16/12 14:21	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 14:21	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 14:21	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 14:21	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/16/12 14:21	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 14:21	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/16/12 14:21	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 14:21	1
Methyl tert-butyl ether	1.4		1.0	0.12	ug/L			05/16/12 14:21	1
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 14:21	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/16/12 14:21	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 14:21	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-7

Lab Sample ID: 600-54909-8

Date Collected: 05/11/12 12:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/16/12 14:21	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 14:21	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 14:21	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/16/12 14:21	1
Benzene	0.14	J	1.0	0.080	ug/L			05/16/12 14:21	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 14:21	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 14:21	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 14:21	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 14:21	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 14:21	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 14:21	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 14:21	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/16/12 14:21	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/16/12 14:21	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 14:21	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/16/12 14:21	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/16/12 14:21	1
Toluene	0.15	U	1.0	0.15	ug/L			05/16/12 14:21	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 14:21	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/16/12 14:21	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/16/12 14:21	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/16/12 14:21	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/16/12 14:21	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/16/12 14:21	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/16/12 14:21	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/16/12 14:21	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/16/12 14:21	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/16/12 14:21	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/16/12 14:21	1
Styrene	0.070	U	1.0	0.070	ug/L			05/16/12 14:21	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/16/12 14:21	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/16/12 14:21	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/16/12 14:21	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/16/12 14:21	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/16/12 14:21	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/16/12 14:21	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/16/12 14:21	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 14:21	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 14:21	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 14:21	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 14:21	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 14:21	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 14:21	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 14:21	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 14:21	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 14:21	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 14:21	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 14:21	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 14:21	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 14:21	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/16/12 14:21	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-7

Lab Sample ID: 600-54909-8

Date Collected: 05/11/12 12:30

Matrix: Water

Date Received: 05/12/12 09:42

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139		05/16/12 14:21	1
Dibromofluoromethane	81		62 - 130		05/16/12 14:21	1
Toluene-d8 (Surr)	85		70 - 130		05/16/12 14:21	1
1,2-Dichloroethane-d4 (Surr)	83		50 - 134		05/16/12 14:21	1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Phenol	0.039	U	1.5	0.039	ug/L		05/16/12 15:10	05/18/12 09:22	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/18/12 09:22	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzyl alcohol	0.17	U	5.4	0.17	ug/L		05/16/12 15:10	05/18/12 09:22	1
Bis(2-chloroisopropyl) ether	0.39	U	1.5	0.39	ug/L		05/16/12 15:10	05/18/12 09:22	1
3 & 4 Methylphenol	0.20	U	0.99	0.20	ug/L		05/16/12 15:10	05/18/12 09:22	1
N-Nitrosodi-n-propylamine	0.099	U	2.5	0.099	ug/L		05/16/12 15:10	05/18/12 09:22	1
Hexachloroethane	0.099	U	2.0	0.099	ug/L		05/16/12 15:10	05/18/12 09:22	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 09:22	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 09:22	1
2-Nitrophenol	0.22	U	0.99	0.22	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/18/12 09:22	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Chloroaniline	0.21	U	0.99	0.21	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Chloro-3-methylphenol	0.17	U	0.99	0.17	ug/L		05/16/12 15:10	05/18/12 09:22	1
2-Methylnaphthalene	0.069	U	1.5	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/18/12 09:22	1
2-Chloronaphthalene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/18/12 09:22	1
Dimethyl phthalate	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
Acenaphthylene	0.059	U	0.99	0.059	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,6-Dinitrotoluene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/18/12 09:22	1
Acenaphthene	0.079	U	0.99	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4-Dinitrophenol	0.38	U	4.9	0.38	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Nitrophenol	0.55	U	2.5	0.55	ug/L		05/16/12 15:10	05/18/12 09:22	1
Dibenzofuran	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/18/12 09:22	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Chlorophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 09:22	1
Fluorene	0.069	U	1.5	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/18/12 09:22	1
4,6-Dinitro-2-methylphenol	0.82	U	2.5	0.82	ug/L		05/16/12 15:10	05/18/12 09:22	1
4-Bromophenyl phenyl ether	0.099	U	1.5	0.099	ug/L		05/16/12 15:10	05/18/12 09:22	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/18/12 09:22	1
Pentachlorophenol	0.60	U	2.5	0.60	ug/L		05/16/12 15:10	05/18/12 09:22	1
Phenanthrene	0.059	U	1.5	0.059	ug/L		05/16/12 15:10	05/18/12 09:22	1
Anthracene	0.049	U	0.99	0.049	ug/L		05/16/12 15:10	05/18/12 09:22	1
Di-n-butyl phthalate	0.19	J	2.5	0.11	ug/L		05/16/12 15:10	05/18/12 09:22	1
Fluoranthene	0.069	U	2.5	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/18/12 09:22	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-7

Lab Sample ID: 600-54909-8

Date Collected: 05/11/12 12:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Butyl benzyl phthalate	0.20	J B	2.5	0.12	ug/L		05/16/12 15:10	05/18/12 09:22	1
3,3'-Dichlorobenzidine	0.18	U	9.9	0.18	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzo[a]anthracene	0.079	U	2.0	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Bis(2-ethylhexyl) phthalate	0.36	U	2.5	0.36	ug/L		05/16/12 15:10	05/18/12 09:22	1
Chrysene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Di-n-octyl phthalate	0.16	U	4.9	0.16	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzo[b]fluoranthene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzo[k]fluoranthene	0.089	U	2.0	0.089	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzo[a]pyrene	0.079	U	1.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Indeno[1,2,3-cd]pyrene	0.069	U	2.0	0.069	ug/L		05/16/12 15:10	05/18/12 09:22	1
Dibenz(a,h)anthracene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1
Benzo[g,h,i]perylene	0.079	U	2.5	0.079	ug/L		05/16/12 15:10	05/18/12 09:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	19		10 - 94	05/16/12 15:10	05/18/12 09:22	1
2,4,6-Tribromophenol	85		10 - 123	05/16/12 15:10	05/18/12 09:22	1
2-Fluorobiphenyl	76		43 - 116	05/16/12 15:10	05/18/12 09:22	1
2-Fluorophenol	30		10 - 100	05/16/12 15:10	05/18/12 09:22	1
Nitrobenzene-d5	72		35 - 114	05/16/12 15:10	05/18/12 09:22	1
Terphenyl-d14	80		33 - 141	05/16/12 15:10	05/18/12 09:22	1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.80	U	1.9	0.80	mg/L		05/18/12 09:26	05/18/12 23:55	1
>C12-C28	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 23:55	1
>C28-C35	0.93	U	1.9	0.93	mg/L		05/18/12 09:26	05/18/12 23:55	1
C6-C35	1.5	U	1.9	1.5	mg/L		05/18/12 09:26	05/18/12 23:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	95		70 - 130	05/18/12 09:26	05/18/12 23:55	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0043	J	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:27	1
Aluminum	0.084	J B	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:27	1
Barium	0.14		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:27	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:27	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:27	1
Copper	0.0049	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:27	1
Manganese	0.019		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:27	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:27	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:27	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:27	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:27	1
Vanadium	0.0017	U	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:27	1
Zinc	0.012	J B	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:27	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 13:13	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-6

Lab Sample ID: 600-54909-9

Date Collected: 05/11/12 13:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	6.0	U *	50	6.0	ug/L			05/16/12 18:38	50
Chloromethane	9.0	U	100	9.0	ug/L			05/16/12 18:38	50
Vinyl chloride	5.5	U	100	5.5	ug/L			05/16/12 18:38	50
Bromomethane	13	U	100	13	ug/L			05/16/12 18:38	50
Chloroethane	4.0	U	100	4.0	ug/L			05/16/12 18:38	50
Trichlorofluoromethane	4.0	U	50	4.0	ug/L			05/16/12 18:38	50
1,1-Dichloroethene	9.5	U	50	9.5	ug/L			05/16/12 18:38	50
trans-1,2-Dichloroethene	4.5	U	50	4.5	ug/L			05/16/12 18:38	50
Methyl tert-butyl ether	6.0	U	50	6.0	ug/L			05/16/12 18:38	50
Acetone	50	U	250	50	ug/L			05/16/12 18:38	50
Iodomethane	100	U	100	100	ug/L			05/16/12 18:38	50
Carbon disulfide	12	U	100	12	ug/L			05/16/12 18:38	50
Methylene Chloride	9.1	J	250	7.5	ug/L			05/16/12 18:38	50
cis-1,2-Dichloroethene	3.0	U	50	3.0	ug/L			05/16/12 18:38	50
2-Butanone (MEK)	38	U	100	38	ug/L			05/16/12 18:38	50
Carbon tetrachloride	7.5	U	50	7.5	ug/L			05/16/12 18:38	50
1,2-Dichloroethane	7.0	U	50	7.0	ug/L			05/16/12 18:38	50
Trichloroethene	9.0	U	50	9.0	ug/L			05/16/12 18:38	50
1,1,1-Trichloroethane	7.5	U	50	7.5	ug/L			05/16/12 18:38	50
1,1-Dichloroethane	5.5	U	50	5.5	ug/L			05/16/12 18:38	50
1,2-Dichloropropane	8.0	U	50	8.0	ug/L			05/16/12 18:38	50
2,2-Dichloropropane	6.5	U	50	6.5	ug/L			05/16/12 18:38	50
Dibromomethane	26	U	50	26	ug/L			05/16/12 18:38	50
Chloroform	6.5	U	50	6.5	ug/L			05/16/12 18:38	50
Bromodichloromethane	8.0	U	50	8.0	ug/L			05/16/12 18:38	50
1,1-Dichloropropene	11	U	50	11	ug/L			05/16/12 18:38	50
cis-1,3-Dichloropropene	9.0	U	50	9.0	ug/L			05/16/12 18:38	50
4-Methyl-2-pentanone (MIBK)	23	U	100	23	ug/L			05/16/12 18:38	50
Toluene	65		50	7.5	ug/L			05/16/12 18:38	50
trans-1,3-Dichloropropene	11	U	50	11	ug/L			05/16/12 18:38	50
1,1,2-Trichloroethane	14	U	50	14	ug/L			05/16/12 18:38	50
Tetrachloroethene	6.5	U	50	6.5	ug/L			05/16/12 18:38	50
1,3-Dichloropropane	11	U	50	11	ug/L			05/16/12 18:38	50
2-Hexanone	18	U	100	18	ug/L			05/16/12 18:38	50
Dibromochloromethane	7.5	U	50	7.5	ug/L			05/16/12 18:38	50
1,2-Dibromoethane	9.0	U	50	9.0	ug/L			05/16/12 18:38	50
Chlorobenzene	6.0	U	50	6.0	ug/L			05/16/12 18:38	50
1,1,1,2-Tetrachloroethane	9.0	U	50	9.0	ug/L			05/16/12 18:38	50
Ethylbenzene	580		50	5.5	ug/L			05/16/12 18:38	50
Xylenes, Total	1400		50	13	ug/L			05/16/12 18:38	50
Styrene	5.1	J	50	3.5	ug/L			05/16/12 18:38	50
Bromoform	9.5	U	50	9.5	ug/L			05/16/12 18:38	50
Isopropylbenzene	42	J	50	9.0	ug/L			05/16/12 18:38	50
Bromobenzene	9.5	U	50	9.5	ug/L			05/16/12 18:38	50
1,2,3-Trichloropropane	15	U	50	15	ug/L			05/16/12 18:38	50
1,1,2,2-Tetrachloroethane	11	U	50	11	ug/L			05/16/12 18:38	50
N-Propylbenzene	58		50	7.5	ug/L			05/16/12 18:38	50
2-Chlorotoluene	6.5	U	50	6.5	ug/L			05/16/12 18:38	50
4-Chlorotoluene	7.0	U	50	7.0	ug/L			05/16/12 18:38	50
1,3,5-Trimethylbenzene	110		50	5.0	ug/L			05/16/12 18:38	50
tert-Butylbenzene	4.0	U	50	4.0	ug/L			05/16/12 18:38	50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-6

Lab Sample ID: 600-54909-9

Date Collected: 05/11/12 13:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Isopropyltoluene	5.0	U	50	5.0	ug/L			05/16/12 18:38	50
1,2,4-Trimethylbenzene	370		50	7.0	ug/L			05/16/12 18:38	50
sec-Butylbenzene	6.0	U	50	6.0	ug/L			05/16/12 18:38	50
1,3-Dichlorobenzene	6.5	U	50	6.5	ug/L			05/16/12 18:38	50
1,4-Dichlorobenzene	5.5	U	50	5.5	ug/L			05/16/12 18:38	50
1,2-Dichlorobenzene	5.0	U	50	5.0	ug/L			05/16/12 18:38	50
n-Butylbenzene	12	J	50	8.0	ug/L			05/16/12 18:38	50
1,2-Dibromo-3-Chloropropane	41	U	50	41	ug/L			05/16/12 18:38	50
1,2,4-Trichlorobenzene	16	U	50	16	ug/L			05/16/12 18:38	50
Hexachlorobutadiene	8.5	U	50	8.5	ug/L			05/16/12 18:38	50
Naphthalene	330		50	16	ug/L			05/16/12 18:38	50

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		05/16/12 18:38	50
Dibromofluoromethane	82		62 - 130		05/16/12 18:38	50
Toluene-d8 (Surr)	87		70 - 130		05/16/12 18:38	50
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		05/16/12 18:38	50

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	13000		1000	80	ug/L			05/16/12 19:07	1000

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	101		67 - 139		05/16/12 19:07	1000
Dibromofluoromethane	78		62 - 130		05/16/12 19:07	1000
Toluene-d8 (Surr)	86		70 - 130		05/16/12 19:07	1000
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		05/16/12 19:07	1000

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5
Phenol	13		7.4	0.20	ug/L		05/16/12 15:10	05/18/12 14:37	5
Bis(2-chloroethyl)ether	0.74	U	7.4	0.74	ug/L		05/16/12 15:10	05/18/12 14:37	5
2-Chlorophenol	0.64	U	9.9	0.64	ug/L		05/16/12 15:10	05/18/12 14:37	5
Benzyl alcohol	0.84	U	27	0.84	ug/L		05/16/12 15:10	05/18/12 14:37	5
Bis(2-chloroisopropyl) ether	2.0	U	7.4	2.0	ug/L		05/16/12 15:10	05/18/12 14:37	5
3 & 4 Methylphenol	0.99	U	4.9	0.99	ug/L		05/16/12 15:10	05/18/12 14:37	5
N-Nitrosodi-n-propylamine	0.49	U	12	0.49	ug/L		05/16/12 15:10	05/18/12 14:37	5
Hexachloroethane	0.49	U	9.9	0.49	ug/L		05/16/12 15:10	05/18/12 14:37	5
Nitrobenzene	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 14:37	5
Isophorone	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 14:37	5
2-Nitrophenol	1.1	U	4.9	1.1	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,4-Dimethylphenol	53		12	1.5	ug/L		05/16/12 15:10	05/18/12 14:37	5
Bis(2-chloroethoxy)methane	0.64	U	7.4	0.64	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,4-Dichlorophenol	0.74	U	12	0.74	ug/L		05/16/12 15:10	05/18/12 14:37	5
4-Chloroaniline	1.0	U	4.9	1.0	ug/L		05/16/12 15:10	05/18/12 14:37	5
4-Chloro-3-methylphenol	0.84	U	4.9	0.84	ug/L		05/16/12 15:10	05/18/12 14:37	5
2-Methylnaphthalene	77		7.4	0.34	ug/L		05/16/12 15:10	05/18/12 14:37	5
Hexachlorocyclopentadiene	0.64	U	7.4	0.64	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,4,6-Trichlorophenol	0.89	U	9.9	0.89	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,4,5-Trichlorophenol	1.2	U	9.9	1.2	ug/L		05/16/12 15:10	05/18/12 14:37	5
2-Chloronaphthalene	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-6

Lab Sample ID: 600-54909-9

Date Collected: 05/11/12 13:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Nitroaniline	0.94	U	12	0.94	ug/L		05/16/12 15:10	05/18/12 14:37	5
Dimethyl phthalate	0.34	U	12	0.34	ug/L		05/16/12 15:10	05/18/12 14:37	5
Acenaphthylene	0.30	U	4.9	0.30	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,6-Dinitrotoluene	0.39	U	4.9	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5
3-Nitroaniline	0.79	U	12	0.79	ug/L		05/16/12 15:10	05/18/12 14:37	5
Acenaphthene	0.75	J	4.9	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,4-Dinitrophenol	1.9	U	25	1.9	ug/L		05/16/12 15:10	05/18/12 14:37	5
4-Nitrophenol	2.8	U	12	2.8	ug/L		05/16/12 15:10	05/18/12 14:37	5
Dibenzofuran	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5
2,4-Dinitrotoluene	0.64	U	7.4	0.64	ug/L		05/16/12 15:10	05/18/12 14:37	5
Diethyl phthalate	7.4	U	12	7.4	ug/L		05/16/12 15:10	05/18/12 14:37	5
4-Chlorophenyl phenyl ether	0.49	U	7.4	0.49	ug/L		05/16/12 15:10	05/18/12 14:37	5
Fluorene	0.34	U	7.4	0.34	ug/L		05/16/12 15:10	05/18/12 14:37	5
4-Nitroaniline	1.2	U	12	1.2	ug/L		05/16/12 15:10	05/18/12 14:37	5
4,6-Dinitro-2-methylphenol	4.1	U	12	4.1	ug/L		05/16/12 15:10	05/18/12 14:37	5
4-Bromophenyl phenyl ether	0.49	U	7.4	0.49	ug/L		05/16/12 15:10	05/18/12 14:37	5
Hexachlorobenzene	0.54	U	7.4	0.54	ug/L		05/16/12 15:10	05/18/12 14:37	5
Pentachlorophenol	3.0	U	12	3.0	ug/L		05/16/12 15:10	05/18/12 14:37	5
Phenanthrene	0.92	J	7.4	0.30	ug/L		05/16/12 15:10	05/18/12 14:37	5
Anthracene	0.25	U	4.9	0.25	ug/L		05/16/12 15:10	05/18/12 14:37	5
Di-n-butyl phthalate	0.54	U	12	0.54	ug/L		05/16/12 15:10	05/18/12 14:37	5
Fluoranthene	0.34	U	12	0.34	ug/L		05/16/12 15:10	05/18/12 14:37	5
Pyrene	0.54	U	9.9	0.54	ug/L		05/16/12 15:10	05/18/12 14:37	5
Butyl benzyl phthalate	0.59	U	12	0.59	ug/L		05/16/12 15:10	05/18/12 14:37	5
3,3'-Dichlorobenzidine	0.89	U	49	0.89	ug/L		05/16/12 15:10	05/18/12 14:37	5
Benzo[a]anthracene	0.39	U	9.9	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5
Bis(2-ethylhexyl) phthalate	1.8	U	12	1.8	ug/L		05/16/12 15:10	05/18/12 14:37	5
Chrysene	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5
Di-n-octyl phthalate	0.79	U	25	0.79	ug/L		05/16/12 15:10	05/18/12 14:37	5
Benzo[b]fluoranthene	0.34	U	9.9	0.34	ug/L		05/16/12 15:10	05/18/12 14:37	5
Benzo[k]fluoranthene	0.44	U	9.9	0.44	ug/L		05/16/12 15:10	05/18/12 14:37	5
Benzo[a]pyrene	0.39	U	7.4	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5
Indeno[1,2,3-cd]pyrene	0.34	U	9.9	0.34	ug/L		05/16/12 15:10	05/18/12 14:37	5
Dibenz(a,h)anthracene	0.39	U	12	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5
Benzo[g,h,i]perylene	0.39	U	12	0.39	ug/L		05/16/12 15:10	05/18/12 14:37	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	17		10 - 94	05/16/12 15:10	05/18/12 14:37	5
2,4,6-Tribromophenol	72		10 - 123	05/16/12 15:10	05/18/12 14:37	5
2-Fluorobiphenyl	64		43 - 116	05/16/12 15:10	05/18/12 14:37	5
2-Fluorophenol	23		10 - 100	05/16/12 15:10	05/18/12 14:37	5
Nitrobenzene-d5	90		35 - 114	05/16/12 15:10	05/18/12 14:37	5
Terphenyl-d14	63		33 - 141	05/16/12 15:10	05/18/12 14:37	5

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	0	X	10 - 94	05/16/12 15:10	05/21/12 13:06	50
2,4,6-Tribromophenol	0	X	10 - 123	05/16/12 15:10	05/21/12 13:06	50
2-Fluorobiphenyl	0	X	43 - 116	05/16/12 15:10	05/21/12 13:06	50
2-Fluorophenol	0	X	10 - 100	05/16/12 15:10	05/21/12 13:06	50
Nitrobenzene-d5	0	X	35 - 114	05/16/12 15:10	05/21/12 13:06	50

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-6

Lab Sample ID: 600-54909-9

Date Collected: 05/11/12 13:30

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels - DL (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	0	X	33 - 141	05/16/12 15:10	05/21/12 13:06	50

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	9.6		2.0	0.81	mg/L		05/18/12 09:26	05/19/12 01:39	1
>C12-C28	4.6		2.0	0.94	mg/L		05/18/12 09:26	05/19/12 01:39	1
>C28-C35	0.94	U	2.0	0.94	mg/L		05/18/12 09:26	05/19/12 01:39	1
C6-C35	14		2.0	1.5	mg/L		05/18/12 09:26	05/19/12 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	101		70 - 130				05/18/12 09:26	05/19/12 01:39	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.067		0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 11:36	1
Aluminum	0.053	J B	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 11:36	1
Barium	0.41		0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 11:36	1
Cobalt	0.0012	J	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 11:36	1
Chromium	0.0023	J	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 11:36	1
Copper	0.0029	J	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 11:36	1
Manganese	0.72		0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 11:36	1
Nickel	0.0055	J	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 11:36	1
Lead	0.011		0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 11:36	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 11:36	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 11:36	1
Vanadium	0.0042	J	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 11:36	1
Zinc	0.012	J B	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 11:36	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 13:18	1

Client Sample ID: TRIP BLANK

Lab Sample ID: 600-54909-10

Date Collected: 05/11/12 00:00

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U *	1.0	0.12	ug/L			05/16/12 01:23	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 01:23	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 01:23	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 01:23	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/16/12 01:23	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 01:23	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/16/12 01:23	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 01:23	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/16/12 01:23	1
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 01:23	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/16/12 01:23	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 01:23	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/16/12 01:23	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 01:23	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 600-54909-10

Date Collected: 05/11/12 00:00

Matrix: Water

Date Received: 05/12/12 09:42

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 01:23	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/16/12 01:23	1
Benzene	0.080	U	1.0	0.080	ug/L			05/16/12 01:23	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 01:23	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 01:23	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 01:23	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 01:23	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 01:23	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 01:23	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 01:23	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/16/12 01:23	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/16/12 01:23	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 01:23	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/16/12 01:23	1
4-Methyl-2-pentanone (MIBK)	0.47	J	2.0	0.45	ug/L			05/16/12 01:23	1
Toluene	0.15	U	1.0	0.15	ug/L			05/16/12 01:23	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 01:23	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/16/12 01:23	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/16/12 01:23	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/16/12 01:23	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/16/12 01:23	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/16/12 01:23	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/16/12 01:23	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/16/12 01:23	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/16/12 01:23	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/16/12 01:23	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/16/12 01:23	1
Styrene	0.070	U	1.0	0.070	ug/L			05/16/12 01:23	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/16/12 01:23	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/16/12 01:23	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/16/12 01:23	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/16/12 01:23	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/16/12 01:23	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/16/12 01:23	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/16/12 01:23	1
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 01:23	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 01:23	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 01:23	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 01:23	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 01:23	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 01:23	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 01:23	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 01:23	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 01:23	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 01:23	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 01:23	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 01:23	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 01:23	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/16/12 01:23	1

Client Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: TRIP BLANK

Lab Sample ID: 600-54909-10

Date Collected: 05/11/12 00:00

Matrix: Water

Date Received: 05/12/12 09:42

<i>Surrogate</i>	<i>%Recovery</i>	<i>Qualifier</i>	<i>Limits</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Dil Fac</i>
4-Bromofluorobenzene	98		67 - 139		05/16/12 01:23	1
Dibromofluoromethane	80		62 - 130		05/16/12 01:23	1
Toluene-d8 (Surr)	86		70 - 130		05/16/12 01:23	1
1,2-Dichloroethane-d4 (Surr)	79		50 - 134		05/16/12 01:23	1

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Analyte	MQL	MDL	Units	Method
1,1,1,2-Tetrachloroethane	1.0	0.18	ug/L	8260B
1,1,1-Trichloroethane	1.0	0.15	ug/L	8260B
1,1,2,2-Tetrachloroethane	1.0	0.22	ug/L	8260B
1,1,2-Trichloroethane	1.0	0.28	ug/L	8260B
1,1-Dichloroethane	1.0	0.11	ug/L	8260B
1,1-Dichloroethene	1.0	0.19	ug/L	8260B
1,1-Dichloropropene	1.0	0.21	ug/L	8260B
1,2,3-Trichloropropane	1.0	0.29	ug/L	8260B
1,2,4-Trichlorobenzene	1.0	0.31	ug/L	8260B
1,2,4-Trimethylbenzene	1.0	0.14	ug/L	8260B
1,2-Dibromo-3-Chloropropane	1.0	0.81	ug/L	8260B
1,2-Dibromoethane	1.0	0.18	ug/L	8260B
1,2-Dichlorobenzene	1.0	0.10	ug/L	8260B
1,2-Dichloroethane	1.0	0.14	ug/L	8260B
1,2-Dichloropropane	1.0	0.16	ug/L	8260B
1,3,5-Trimethylbenzene	1.0	0.10	ug/L	8260B
1,3-Dichlorobenzene	1.0	0.13	ug/L	8260B
1,3-Dichloropropane	1.0	0.22	ug/L	8260B
1,4-Dichlorobenzene	1.0	0.11	ug/L	8260B
2,2-Dichloropropane	1.0	0.13	ug/L	8260B
2-Butanone (MEK)	2.0	0.76	ug/L	8260B
2-Chlorotoluene	1.0	0.13	ug/L	8260B
2-Hexanone	2.0	0.35	ug/L	8260B
4-Chlorotoluene	1.0	0.14	ug/L	8260B
4-Isopropyltoluene	1.0	0.10	ug/L	8260B
4-Methyl-2-pentanone (MIBK)	2.0	0.45	ug/L	8260B
Acetone	5.0	0.99	ug/L	8260B
Benzene	1.0	0.080	ug/L	8260B
Bromobenzene	1.0	0.19	ug/L	8260B
Bromodichloromethane	1.0	0.16	ug/L	8260B
Bromoform	1.0	0.19	ug/L	8260B
Bromomethane	2.0	0.25	ug/L	8260B
Carbon disulfide	2.0	0.24	ug/L	8260B
Carbon tetrachloride	1.0	0.15	ug/L	8260B
Chlorobenzene	1.0	0.12	ug/L	8260B
Chloroethane	2.0	0.080	ug/L	8260B
Chloroform	1.0	0.13	ug/L	8260B
Chloromethane	2.0	0.18	ug/L	8260B
cis-1,2-Dichloroethene	1.0	0.060	ug/L	8260B
cis-1,3-Dichloropropene	1.0	0.18	ug/L	8260B
Dibromochloromethane	1.0	0.15	ug/L	8260B
Dibromomethane	1.0	0.52	ug/L	8260B
Dichlorodifluoromethane	1.0	0.12	ug/L	8260B
Ethylbenzene	1.0	0.11	ug/L	8260B
Hexachlorobutadiene	1.0	0.17	ug/L	8260B
Iodomethane	2.0	2.0	ug/L	8260B
Isopropylbenzene	1.0	0.18	ug/L	8260B
Methyl tert-butyl ether	1.0	0.12	ug/L	8260B
Methylene Chloride	5.0	0.15	ug/L	8260B
Naphthalene	1.0	0.32	ug/L	8260B
n-Butylbenzene	1.0	0.16	ug/L	8260B
N-Propylbenzene	1.0	0.15	ug/L	8260B
sec-Butylbenzene	1.0	0.12	ug/L	8260B
Styrene	1.0	0.070	ug/L	8260B

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	MQL	MDL	Units	Method
tert-Butylbenzene	1.0	0.080	ug/L	8260B
Tetrachloroethene	1.0	0.13	ug/L	8260B
Toluene	1.0	0.15	ug/L	8260B
trans-1,2-Dichloroethene	1.0	0.090	ug/L	8260B
trans-1,3-Dichloropropene	1.0	0.21	ug/L	8260B
Trichloroethene	1.0	0.18	ug/L	8260B
Trichlorofluoromethane	1.0	0.080	ug/L	8260B
Vinyl chloride	2.0	0.11	ug/L	8260B
Xylenes, Total	1.0	0.26	ug/L	8260B

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Analyte	MQL	MDL	Units	Method
2,4,5-Trichlorophenol	2.0	0.25	ug/L	8270C LL
2,4,6-Trichlorophenol	2.0	0.18	ug/L	8270C LL
2,4-Dichlorophenol	2.5	0.15	ug/L	8270C LL
2,4-Dimethylphenol	2.5	0.31	ug/L	8270C LL
2,4-Dinitrophenol	5.0	0.39	ug/L	8270C LL
2,4-Dinitrotoluene	1.5	0.13	ug/L	8270C LL
2,6-Dinitrotoluene	1.0	0.080	ug/L	8270C LL
2-Chloronaphthalene	1.5	0.080	ug/L	8270C LL
2-Chlorophenol	2.0	0.13	ug/L	8270C LL
2-Methylnaphthalene	1.5	0.070	ug/L	8270C LL
2-Nitroaniline	2.5	0.19	ug/L	8270C LL
2-Nitrophenol	1.0	0.22	ug/L	8270C LL
3 & 4 Methylphenol	1.0	0.20	ug/L	8270C LL
3,3'-Dichlorobenzidine	10	0.18	ug/L	8270C LL
3-Nitroaniline	2.5	0.16	ug/L	8270C LL
4,6-Dinitro-2-methylphenol	2.5	0.83	ug/L	8270C LL
4-Bromophenyl phenyl ether	1.5	0.10	ug/L	8270C LL
4-Chloro-3-methylphenol	1.0	0.17	ug/L	8270C LL
4-Chloroaniline	1.0	0.21	ug/L	8270C LL
4-Chlorophenyl phenyl ether	1.5	0.10	ug/L	8270C LL
4-Nitroaniline	2.5	0.25	ug/L	8270C LL
4-Nitrophenol	2.5	0.56	ug/L	8270C LL
Acenaphthene	1.0	0.080	ug/L	8270C LL
Acenaphthylene	1.0	0.060	ug/L	8270C LL
Aniline	1.5	0.080	ug/L	8270C LL
Anthracene	1.0	0.050	ug/L	8270C LL
Benzo[a]anthracene	2.0	0.080	ug/L	8270C LL
Benzo[a]pyrene	1.5	0.080	ug/L	8270C LL
Benzo[b]fluoranthene	2.0	0.070	ug/L	8270C LL
Benzo[g,h,i]perylene	2.5	0.080	ug/L	8270C LL
Benzo[k]fluoranthene	2.0	0.090	ug/L	8270C LL
Benzyl alcohol	5.5	0.17	ug/L	8270C LL
Bis(2-chloroethoxy)methane	1.5	0.13	ug/L	8270C LL
Bis(2-chloroethyl)ether	1.5	0.15	ug/L	8270C LL
Bis(2-chloroisopropyl) ether	1.5	0.40	ug/L	8270C LL
Bis(2-ethylhexyl) phthalate	2.5	0.37	ug/L	8270C LL
Butyl benzyl phthalate	2.5	0.12	ug/L	8270C LL
Chrysene	1.5	0.080	ug/L	8270C LL
Dibenz(a,h)anthracene	2.5	0.080	ug/L	8270C LL
Dibenzofuran	1.5	0.080	ug/L	8270C LL
Diethyl phthalate	2.5	1.5	ug/L	8270C LL

Unadjusted Detection Limits

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Analyte	MQL	MDL	Units	Method
Dimethyl phthalate	2.5	0.070	ug/L	8270C LL
Di-n-butyl phthalate	2.5	0.11	ug/L	8270C LL
Di-n-octyl phthalate	5.0	0.16	ug/L	8270C LL
Fluoranthene	2.5	0.070	ug/L	8270C LL
Fluorene	1.5	0.070	ug/L	8270C LL
Hexachlorobenzene	1.5	0.11	ug/L	8270C LL
Hexachlorocyclopentadiene	1.5	0.13	ug/L	8270C LL
Hexachloroethane	2.0	0.10	ug/L	8270C LL
Indeno[1,2,3-cd]pyrene	2.0	0.070	ug/L	8270C LL
Isophorone	1.5	0.11	ug/L	8270C LL
Nitrobenzene	1.5	0.11	ug/L	8270C LL
N-Nitrosodi-n-propylamine	2.5	0.10	ug/L	8270C LL
Pentachlorophenol	2.5	0.61	ug/L	8270C LL
Phenanthrene	1.5	0.060	ug/L	8270C LL
Phenol	1.5	0.040	ug/L	8270C LL
Pyrene	2.0	0.11	ug/L	8270C LL

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Analyte	MQL	MDL	Units	Method
>C12-C28	2.0	0.96	mg/L	TX 1005
>C28-C35	2.0	0.96	mg/L	TX 1005
C6-C12	2.0	0.83	mg/L	TX 1005
C6-C35	2.0	1.6	mg/L	TX 1005

Method: 6010B - Metals (ICP)

Analyte	MQL	MDL	Units	Method
Aluminum	0.50	0.022	mg/L	6010B
Arsenic	0.010	0.0033	mg/L	6010B
Barium	0.020	0.0022	mg/L	6010B
Chromium	0.010	0.0016	mg/L	6010B
Cobalt	0.010	0.00063	mg/L	6010B
Copper	0.010	0.0015	mg/L	6010B
Lead	0.010	0.0029	mg/L	6010B
Manganese	0.010	0.00084	mg/L	6010B
Nickel	0.010	0.0018	mg/L	6010B
Selenium	0.040	0.0042	mg/L	6010B
Thallium	0.030	0.0078	mg/L	6010B
Vanadium	0.010	0.0017	mg/L	6010B
Zinc	0.030	0.0022	mg/L	6010B

Method: 7470A - Mercury (CVAA)

Analyte	MQL	MDL	Units	Method
Mercury	0.00020	0.000026	mg/L	7470A

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		BFB (67-139)	DBFM (62-130)	TOL (70-130)	12DCE (50-134)
600-54909-1	MW-1	94	80	92	81
600-54909-2	DUP-1	94	81	90	81
600-54909-3 - DL	MW-5	98	80	88	75
600-54909-3	MW-5	100	81	87	74
600-54909-3 MS - DL	MW-5	100	84	88	78
600-54909-3 MS	MW-5	104	85	84	80
600-54909-3 MSD - DL	MW-5	97	84	86	78
600-54909-3 MSD	MW-5	102	88	87	79
600-54909-4	MW-11	94	81	87	77
600-54909-5	MW-10	98	80	88	79
600-54909-6	MW-8	97	84	87	81
600-54909-7	DUP-2	100	78	85	81
600-54909-8	MW-7	101	81	85	83
600-54909-8 MS	MW-7	101	85	85	82
600-54909-8 MSD	MW-7	98	86	85	78
600-54909-9	MW-6	100	82	87	80
600-54909-9 - DL	MW-6	101	78	86	78
600-54909-10	TRIP BLANK	98	80	86	79
LCS 600-79279/3	Lab Control Sample	98	85	86	80
LCS 600-79300/5	Lab Control Sample	99	82	87	77
LCS 600-79383/3	Lab Control Sample	100	83	88	79
LCS 600-79394/3	Lab Control Sample	100	85	85	80
MB 600-79279/4	Method Blank	99	78	87	75
MB 600-79300/7	Method Blank	103	81	86	80
MB 600-79383/4	Method Blank	102	80	87	78
MB 600-79394/4	Method Blank	100	82	84	80

Surrogate Legend

BFB = 4-Bromofluorobenzene
DBFM = Dibromofluoromethane
TOL = Toluene-d8 (Surr)
12DCE = 1,2-Dichloroethane-d4 (Surr)

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-54909-1	MW-1	23	88	79	38	74	77
600-54909-2	DUP-1	22	82	74	34	67	75
600-54909-3	MW-5	22	87	83	35	92	78
600-54909-3 MS	MW-5	27	99	92	39	85	82
600-54909-3 MSD	MW-5	14	100	95	39	97	84
600-54909-4	MW-11	16	69	60	26	59	78
600-54909-5	MW-10	19	73	64	30	60	76
600-54909-6	MW-8	19	78	69	33	68	82
600-54909-7	DUP-2	18	72	63	31	64	77
600-54909-8	MW-7	19	85	76	30	72	80
600-54909-8 MS	MW-7	17	76	61	27	61	69
600-54909-8 MSD	MW-7	20	82	69	32	71	74

Surrogate Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		PHL (10-94)	TBP (10-123)	FBP (43-116)	2FP (10-100)	NBZ (35-114)	TPH (33-141)
600-54909-9	MW-6	17	72	64	23	90	63
600-54909-9 - DL	MW-6	0 X	0 X	0 X	0 X	0 X	0 X
LCS 600-79421/2-A	Lab Control Sample	24	89	93	41	91	90
MB 600-79421/1-A	Method Blank	25	79	98	43	96	93
Surrogate Legend							
PHL = Phenol-d6							
TBP = 2,4,6-Tribromophenol							
FBP = 2-Fluorobiphenyl							
2FP = 2-Fluorophenol							
NBZ = Nitrobenzene-d5							
TPH = Terphenyl-d14							

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		OTPH (70-130)					
600-54909-1	MW-1	100					
600-54909-2	DUP-1	92					
600-54909-3	MW-5	108					
600-54909-3 MS	MW-5	94					
600-54909-3 MSD	MW-5	127					
600-54909-4	MW-11	93					
600-54909-5	MW-10	93					
600-54909-6	MW-8	96					
600-54909-7	DUP-2	95					
600-54909-8	MW-7	95					
600-54909-8 MS	MW-7	126					
600-54909-8 MSD	MW-7	129					
600-54909-9	MW-6	101					
LCS 600-79551/2-A	Lab Control Sample	129					
MB 600-79551/1-A	Method Blank	94					
Surrogate Legend							
OTPH = o-Terphenyl							

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 600-79279/4

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/15/12 00:36	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 00:36	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 00:36	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 00:36	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 00:36	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 00:36	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 00:36	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 00:36	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 00:36	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 00:36	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 00:36	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 00:36	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 00:36	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 00:36	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 00:36	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 00:36	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 00:36	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 00:36	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 00:36	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 00:36	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 00:36	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 00:36	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 00:36	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 00:36	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 00:36	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 00:36	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 00:36	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 00:36	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 00:36	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 00:36	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 00:36	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 00:36	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 00:36	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 00:36	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 00:36	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 00:36	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 00:36	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79279/4

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 00:36	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 00:36	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 00:36	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 00:36	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 00:36	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 00:36	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 00:36	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 00:36	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 00:36	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 00:36	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 00:36	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 00:36	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 00:36	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 00:36	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		67 - 139		05/15/12 00:36	1
Dibromofluoromethane	78		62 - 130		05/15/12 00:36	1
Toluene-d8 (Surr)	87		70 - 130		05/15/12 00:36	1
1,2-Dichloroethane-d4 (Surr)	75		50 - 134		05/15/12 00:36	1

Lab Sample ID: LCS 600-79279/3

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	33.3	*	ug/L		333	12 - 136
Chloromethane	10.0	14.1		ug/L		141	32 - 151
Vinyl chloride	10.0	11.7		ug/L		117	47 - 146
Bromomethane	10.0	12.7		ug/L		127	52 - 146
Chloroethane	10.0	11.6		ug/L		116	56 - 144
Trichlorofluoromethane	10.0	12.9		ug/L		129	55 - 142
1,1-Dichloroethene	10.0	10.8		ug/L		108	59 - 145
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	8.52		ug/L		85	63 - 142
Acetone	20.0	16.5		ug/L		83	28 - 152
Iodomethane	10.0	9.16		ug/L		92	17 - 197
Carbon disulfide	10.0	10.4		ug/L		104	32 - 177
Methylene Chloride	10.0	9.32		ug/L		93	62 - 134
cis-1,2-Dichloroethene	10.0	8.80		ug/L		88	69 - 129
2-Butanone (MEK)	20.0	15.0		ug/L		75	59 - 133
Carbon tetrachloride	10.0	10.9		ug/L		109	59 - 147
Benzene	10.0	9.58		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.77		ug/L		98	66 - 140
Trichloroethene	10.0	9.45		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.6		ug/L		106	65 - 142
1,1-Dichloroethane	10.0	9.75		ug/L		98	66 - 126
1,2-Dichloropropane	10.0	9.59		ug/L		96	72 - 125
2,2-Dichloropropane	10.0	10.1		ug/L		101	43 - 169

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79279/3

Matrix: Water

Analysis Batch: 79279

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	10.0	9.61		ug/L		96	68 - 134
Chloroform	10.0	9.54		ug/L		95	69 - 128
Bromodichloromethane	10.0	9.63		ug/L		96	73 - 130
1,1-Dichloropropene	10.0	10.1		ug/L		101	59 - 134
cis-1,3-Dichloropropene	10.0	9.73		ug/L		97	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	18.2		ug/L		91	56 - 142
Toluene	10.0	9.43		ug/L		94	67 - 130
trans-1,3-Dichloropropene	10.0	10.7		ug/L		107	63 - 133
1,1,2-Trichloroethane	10.0	9.42		ug/L		94	68 - 130
Tetrachloroethene	10.0	13.0		ug/L		130	61 - 142
1,3-Dichloropropane	10.0	9.10		ug/L		91	62 - 132
2-Hexanone	20.0	18.1		ug/L		91	51 - 130
Dibromochloromethane	10.0	9.71		ug/L		97	58 - 132
1,2-Dibromoethane	10.0	9.66		ug/L		97	68 - 128
Chlorobenzene	10.0	9.29		ug/L		93	60 - 136
1,1,1,2-Tetrachloroethane	10.0	9.58		ug/L		96	57 - 136
Ethylbenzene	10.0	9.33		ug/L		93	68 - 128
Xylenes, Total	30.0	28.4		ug/L		95	68 - 132
Styrene	10.0	9.86		ug/L		99	68 - 133
Bromoform	10.0	9.04		ug/L		90	39 - 149
Isopropylbenzene	10.0	11.0		ug/L		110	79 - 146
Bromobenzene	10.0	9.15		ug/L		91	61 - 134
1,2,3-Trichloropropane	10.0	9.13		ug/L		91	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.58		ug/L		96	68 - 134
N-Propylbenzene	10.0	9.67		ug/L		97	61 - 137
2-Chlorotoluene	10.0	9.50		ug/L		95	58 - 135
4-Chlorotoluene	10.0	9.59		ug/L		96	64 - 134
1,3,5-Trimethylbenzene	10.0	9.48		ug/L		95	63 - 132
tert-Butylbenzene	10.0	10.1		ug/L		101	67 - 148
4-Isopropyltoluene	10.0	10.4		ug/L		104	63 - 138
1,2,4-Trimethylbenzene	10.0	9.45		ug/L		94	63 - 131
sec-Butylbenzene	10.0	9.92		ug/L		99	61 - 134
1,3-Dichlorobenzene	10.0	9.39		ug/L		94	71 - 132
1,4-Dichlorobenzene	10.0	9.41		ug/L		94	72 - 131
1,2-Dichlorobenzene	10.0	9.17		ug/L		92	71 - 133
n-Butylbenzene	10.0	10.0		ug/L		100	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	13.4		ug/L		134	43 - 141
1,2,4-Trichlorobenzene	10.0	10.3		ug/L		103	55 - 151
Hexachlorobutadiene	10.0	10.2		ug/L		102	53 - 140
Naphthalene	10.0	10.6		ug/L		106	19 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	98		67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	86		70 - 130
1,2-Dichloroethane-d4 (Surr)	80		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79300/7

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/15/12 12:13	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/15/12 12:13	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/15/12 12:13	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/15/12 12:13	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/15/12 12:13	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/15/12 12:13	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/15/12 12:13	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	1
Acetone	0.99	U	5.0	0.99	ug/L			05/15/12 12:13	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/15/12 12:13	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/15/12 12:13	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/15/12 12:13	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/15/12 12:13	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/15/12 12:13	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
Benzene	0.080	U	1.0	0.080	ug/L			05/15/12 12:13	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/15/12 12:13	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/15/12 12:13	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/15/12 12:13	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/15/12 12:13	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/15/12 12:13	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 12:13	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/15/12 12:13	1
Toluene	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/15/12 12:13	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/15/12 12:13	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/15/12 12:13	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/15/12 12:13	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/15/12 12:13	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/15/12 12:13	1
Styrene	0.070	U	1.0	0.070	ug/L			05/15/12 12:13	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/15/12 12:13	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/15/12 12:13	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/15/12 12:13	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/15/12 12:13	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/15/12 12:13	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/15/12 12:13	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79300/7

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/15/12 12:13	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/15/12 12:13	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/15/12 12:13	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/15/12 12:13	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/15/12 12:13	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/15/12 12:13	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/15/12 12:13	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/15/12 12:13	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/15/12 12:13	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/15/12 12:13	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/15/12 12:13	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/15/12 12:13	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/15/12 12:13	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/15/12 12:13	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	103		67 - 139		05/15/12 12:13	1
Dibromofluoromethane	81		62 - 130		05/15/12 12:13	1
Toluene-d8 (Surr)	86		70 - 130		05/15/12 12:13	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		05/15/12 12:13	1

Lab Sample ID: LCS 600-79300/5

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	34.5	*	ug/L		345	12 - 136
Chloromethane	10.0	15.1		ug/L		151	32 - 151
Vinyl chloride	10.0	13.0		ug/L		130	47 - 146
Bromomethane	10.0	13.0		ug/L		130	52 - 146
Chloroethane	10.0	12.5		ug/L		125	56 - 144
Trichlorofluoromethane	10.0	13.5		ug/L		135	55 - 142
1,1-Dichloroethene	10.0	11.2		ug/L		112	59 - 145
trans-1,2-Dichloroethene	10.0	10.5		ug/L		105	70 - 132
Methyl tert-butyl ether	10.0	8.87		ug/L		89	63 - 142
Acetone	20.0	17.6		ug/L		88	28 - 152
Iodomethane	10.0	9.68		ug/L		97	17 - 197
Carbon disulfide	10.0	10.7		ug/L		107	32 - 177
Methylene Chloride	10.0	10.1		ug/L		101	62 - 134
cis-1,2-Dichloroethene	10.0	9.32		ug/L		93	69 - 129
2-Butanone (MEK)	20.0	16.8		ug/L		84	59 - 133
Carbon tetrachloride	10.0	11.7		ug/L		117	59 - 147
Benzene	10.0	10.2		ug/L		102	69 - 131
1,2-Dichloroethane	10.0	10.3		ug/L		103	66 - 140
Trichloroethene	10.0	9.97		ug/L		100	68 - 130
1,1,1-Trichloroethane	10.0	11.1		ug/L		111	65 - 142
1,1-Dichloroethane	10.0	10.6		ug/L		106	66 - 126
1,2-Dichloropropane	10.0	10.3		ug/L		103	72 - 125
2,2-Dichloropropane	10.0	12.3		ug/L		123	43 - 169

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79300/5

Matrix: Water

Analysis Batch: 79300

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	10.0	10.4		ug/L		104	68 - 134
Chloroform	10.0	10.3		ug/L		103	69 - 128
Bromodichloromethane	10.0	9.81		ug/L		98	73 - 130
1,1-Dichloropropene	10.0	10.5		ug/L		105	59 - 134
cis-1,3-Dichloropropene	10.0	10.5		ug/L		105	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	19.8		ug/L		99	56 - 142
Toluene	10.0	9.91		ug/L		99	67 - 130
trans-1,3-Dichloropropene	10.0	11.5		ug/L		115	63 - 133
1,1,2-Trichloroethane	10.0	9.99		ug/L		100	68 - 130
Tetrachloroethene	10.0	10.1		ug/L		101	61 - 142
1,3-Dichloropropane	10.0	9.80		ug/L		98	62 - 132
2-Hexanone	20.0	19.3		ug/L		97	51 - 130
Dibromochloromethane	10.0	10.2		ug/L		102	58 - 132
1,2-Dibromoethane	10.0	9.84		ug/L		98	68 - 128
Chlorobenzene	10.0	9.70		ug/L		97	60 - 136
1,1,1,2-Tetrachloroethane	10.0	9.78		ug/L		98	57 - 136
Ethylbenzene	10.0	9.87		ug/L		99	68 - 128
Xylenes, Total	30.0	30.1		ug/L		100	68 - 132
Styrene	10.0	10.2		ug/L		102	68 - 133
Bromoform	10.0	10.2		ug/L		102	39 - 149
Isopropylbenzene	10.0	11.5		ug/L		115	79 - 146
Bromobenzene	10.0	9.38		ug/L		94	61 - 134
1,2,3-Trichloropropane	10.0	9.78		ug/L		98	52 - 157
1,1,2,2-Tetrachloroethane	10.0	10.4		ug/L		104	68 - 134
N-Propylbenzene	10.0	10.1		ug/L		101	61 - 137
2-Chlorotoluene	10.0	9.77		ug/L		98	58 - 135
4-Chlorotoluene	10.0	10.1		ug/L		101	64 - 134
1,3,5-Trimethylbenzene	10.0	9.73		ug/L		97	63 - 132
tert-Butylbenzene	10.0	10.7		ug/L		107	67 - 148
4-Isopropyltoluene	10.0	10.8		ug/L		108	63 - 138
1,2,4-Trimethylbenzene	10.0	9.87		ug/L		99	63 - 131
sec-Butylbenzene	10.0	10.2		ug/L		102	61 - 134
1,3-Dichlorobenzene	10.0	9.67		ug/L		97	71 - 132
1,4-Dichlorobenzene	10.0	9.82		ug/L		98	72 - 131
1,2-Dichlorobenzene	10.0	9.56		ug/L		96	71 - 133
n-Butylbenzene	10.0	10.5		ug/L		105	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	11.6		ug/L		116	43 - 141
1,2,4-Trichlorobenzene	10.0	9.26		ug/L		93	55 - 151
Hexachlorobutadiene	10.0	9.10		ug/L		91	53 - 140
Naphthalene	10.0	9.04		ug/L		90	19 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	99		67 - 139
Dibromofluoromethane	82		62 - 130
Toluene-d8 (Surr)	87		70 - 130
1,2-Dichloroethane-d4 (Surr)	77		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79383/4

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/16/12 00:54	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 00:54	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 00:54	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 00:54	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/16/12 00:54	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 00:54	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/16/12 00:54	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 00:54	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/16/12 00:54	1
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 00:54	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/16/12 00:54	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 00:54	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/16/12 00:54	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 00:54	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 00:54	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
Benzene	0.080	U	1.0	0.080	ug/L			05/16/12 00:54	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 00:54	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 00:54	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 00:54	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/16/12 00:54	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 00:54	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/16/12 00:54	1
Toluene	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 00:54	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/16/12 00:54	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/16/12 00:54	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/16/12 00:54	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/16/12 00:54	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/16/12 00:54	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/16/12 00:54	1
Styrene	0.070	U	1.0	0.070	ug/L			05/16/12 00:54	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/16/12 00:54	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/16/12 00:54	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/16/12 00:54	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/16/12 00:54	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/16/12 00:54	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/16/12 00:54	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79383/4

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 00:54	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 00:54	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 00:54	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 00:54	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 00:54	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 00:54	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 00:54	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 00:54	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 00:54	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 00:54	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/16/12 00:54	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	102		67 - 139		05/16/12 00:54	1
Dibromofluoromethane	80		62 - 130		05/16/12 00:54	1
Toluene-d8 (Surr)	87		70 - 130		05/16/12 00:54	1
1,2-Dichloroethane-d4 (Surr)	78		50 - 134		05/16/12 00:54	1

Lab Sample ID: LCS 600-79383/3

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	30.0	*	ug/L		300	12 - 136
Chloromethane	10.0	13.5		ug/L		135	32 - 151
Vinyl chloride	10.0	11.1		ug/L		111	47 - 146
Bromomethane	10.0	11.4		ug/L		114	52 - 146
Chloroethane	10.0	11.1		ug/L		111	56 - 144
Trichlorofluoromethane	10.0	11.9		ug/L		119	55 - 142
1,1-Dichloroethene	10.0	10.2		ug/L		102	59 - 145
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	70 - 132
Methyl tert-butyl ether	10.0	8.94		ug/L		89	63 - 142
Acetone	20.0	18.0		ug/L		90	28 - 152
Iodomethane	10.0	8.96		ug/L		90	17 - 197
Carbon disulfide	10.0	10.4		ug/L		104	32 - 177
Methylene Chloride	10.0	9.61		ug/L		96	62 - 134
cis-1,2-Dichloroethene	10.0	9.09		ug/L		91	69 - 129
2-Butanone (MEK)	20.0	17.2		ug/L		86	59 - 133
Carbon tetrachloride	10.0	10.4		ug/L		104	59 - 147
Benzene	10.0	9.61		ug/L		96	69 - 131
1,2-Dichloroethane	10.0	9.77		ug/L		98	66 - 140
Trichloroethene	10.0	9.36		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.1		ug/L		101	65 - 142
1,1-Dichloroethane	10.0	9.91		ug/L		99	66 - 126
1,2-Dichloropropane	10.0	9.56		ug/L		96	72 - 125
2,2-Dichloropropane	10.0	9.26		ug/L		93	43 - 169

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79383/3

Matrix: Water

Analysis Batch: 79383

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	10.0	9.68		ug/L		97	68 - 134
Chloroform	10.0	9.85		ug/L		99	69 - 128
Bromodichloromethane	10.0	9.21		ug/L		92	73 - 130
1,1-Dichloropropene	10.0	9.96		ug/L		100	59 - 134
cis-1,3-Dichloropropene	10.0	9.72		ug/L		97	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	18.9		ug/L		94	56 - 142
Toluene	10.0	9.69		ug/L		97	67 - 130
trans-1,3-Dichloropropene	10.0	10.1		ug/L		101	63 - 133
1,1,2-Trichloroethane	10.0	9.94		ug/L		99	68 - 130
Tetrachloroethene	10.0	14.2		ug/L		142	61 - 142
1,3-Dichloropropane	10.0	9.57		ug/L		96	62 - 132
2-Hexanone	20.0	19.1		ug/L		95	51 - 130
Dibromochloromethane	10.0	9.27		ug/L		93	58 - 132
1,2-Dibromoethane	10.0	9.28		ug/L		93	68 - 128
Chlorobenzene	10.0	9.22		ug/L		92	60 - 136
1,1,1,2-Tetrachloroethane	10.0	9.37		ug/L		94	57 - 136
Ethylbenzene	10.0	9.37		ug/L		94	68 - 128
Xylenes, Total	30.0	28.9		ug/L		96	68 - 132
Styrene	10.0	9.72		ug/L		97	68 - 133
Bromoform	10.0	8.41		ug/L		84	39 - 149
Isopropylbenzene	10.0	11.2		ug/L		112	79 - 146
Bromobenzene	10.0	9.14		ug/L		91	61 - 134
1,2,3-Trichloropropane	10.0	8.84		ug/L		88	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.89		ug/L		99	68 - 134
N-Propylbenzene	10.0	9.75		ug/L		97	61 - 137
2-Chlorotoluene	10.0	9.53		ug/L		95	58 - 135
4-Chlorotoluene	10.0	9.69		ug/L		97	64 - 134
1,3,5-Trimethylbenzene	10.0	9.43		ug/L		94	63 - 132
tert-Butylbenzene	10.0	10.1		ug/L		101	67 - 148
4-Isopropyltoluene	10.0	10.4		ug/L		104	63 - 138
1,2,4-Trimethylbenzene	10.0	9.62		ug/L		96	63 - 131
sec-Butylbenzene	10.0	9.90		ug/L		99	61 - 134
1,3-Dichlorobenzene	10.0	9.49		ug/L		95	71 - 132
1,4-Dichlorobenzene	10.0	9.46		ug/L		95	72 - 131
1,2-Dichlorobenzene	10.0	9.43		ug/L		94	71 - 133
n-Butylbenzene	10.0	9.83		ug/L		98	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	11.6		ug/L		116	43 - 141
1,2,4-Trichlorobenzene	10.0	10.3		ug/L		103	55 - 151
Hexachlorobutadiene	10.0	9.86		ug/L		99	53 - 140
Naphthalene	10.0	10.7		ug/L		107	19 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	100		67 - 139
Dibromofluoromethane	83		62 - 130
Toluene-d8 (Surr)	88		70 - 130
1,2-Dichloroethane-d4 (Surr)	79		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79394/4

Matrix: Water

Analysis Batch: 79394

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	1
Chloromethane	0.18	U	2.0	0.18	ug/L			05/16/12 13:24	1
Vinyl chloride	0.11	U	2.0	0.11	ug/L			05/16/12 13:24	1
Bromomethane	0.25	U	2.0	0.25	ug/L			05/16/12 13:24	1
Chloroethane	0.080	U	2.0	0.080	ug/L			05/16/12 13:24	1
Trichlorofluoromethane	0.080	U	1.0	0.080	ug/L			05/16/12 13:24	1
1,1-Dichloroethene	0.19	U	1.0	0.19	ug/L			05/16/12 13:24	1
trans-1,2-Dichloroethene	0.090	U	1.0	0.090	ug/L			05/16/12 13:24	1
Methyl tert-butyl ether	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	1
Acetone	0.99	U	5.0	0.99	ug/L			05/16/12 13:24	1
Iodomethane	2.0	U	2.0	2.0	ug/L			05/16/12 13:24	1
Carbon disulfide	0.24	U	2.0	0.24	ug/L			05/16/12 13:24	1
Methylene Chloride	0.15	U	5.0	0.15	ug/L			05/16/12 13:24	1
cis-1,2-Dichloroethene	0.060	U	1.0	0.060	ug/L			05/16/12 13:24	1
2-Butanone (MEK)	0.76	U	2.0	0.76	ug/L			05/16/12 13:24	1
Carbon tetrachloride	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	1
Benzene	0.080	U	1.0	0.080	ug/L			05/16/12 13:24	1
1,2-Dichloroethane	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	1
Trichloroethene	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	1
1,1,1-Trichloroethane	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	1
1,1-Dichloroethane	0.11	U	1.0	0.11	ug/L			05/16/12 13:24	1
1,2-Dichloropropane	0.16	U	1.0	0.16	ug/L			05/16/12 13:24	1
2,2-Dichloropropane	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1
Dibromomethane	0.52	U	1.0	0.52	ug/L			05/16/12 13:24	1
Chloroform	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1
Bromodichloromethane	0.16	U	1.0	0.16	ug/L			05/16/12 13:24	1
1,1-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 13:24	1
cis-1,3-Dichloropropene	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	1
4-Methyl-2-pentanone (MIBK)	0.45	U	2.0	0.45	ug/L			05/16/12 13:24	1
Toluene	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	1
trans-1,3-Dichloropropene	0.21	U	1.0	0.21	ug/L			05/16/12 13:24	1
1,1,2-Trichloroethane	0.28	U	1.0	0.28	ug/L			05/16/12 13:24	1
Tetrachloroethene	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1
1,3-Dichloropropane	0.22	U	1.0	0.22	ug/L			05/16/12 13:24	1
2-Hexanone	0.35	U	2.0	0.35	ug/L			05/16/12 13:24	1
Dibromochloromethane	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	1
1,2-Dibromoethane	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	1
Chlorobenzene	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	1
1,1,1,2-Tetrachloroethane	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	1
Ethylbenzene	0.11	U	1.0	0.11	ug/L			05/16/12 13:24	1
Xylenes, Total	0.26	U	1.0	0.26	ug/L			05/16/12 13:24	1
Styrene	0.070	U	1.0	0.070	ug/L			05/16/12 13:24	1
Bromoform	0.19	U	1.0	0.19	ug/L			05/16/12 13:24	1
Isopropylbenzene	0.18	U	1.0	0.18	ug/L			05/16/12 13:24	1
Bromobenzene	0.19	U	1.0	0.19	ug/L			05/16/12 13:24	1
1,2,3-Trichloropropane	0.29	U	1.0	0.29	ug/L			05/16/12 13:24	1
1,1,2,2-Tetrachloroethane	0.22	U	1.0	0.22	ug/L			05/16/12 13:24	1
N-Propylbenzene	0.15	U	1.0	0.15	ug/L			05/16/12 13:24	1
2-Chlorotoluene	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 600-79394/4

Matrix: Water

Analysis Batch: 79394

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Chlorotoluene	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	1
1,3,5-Trimethylbenzene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
tert-Butylbenzene	0.080	U	1.0	0.080	ug/L			05/16/12 13:24	1
4-Isopropyltoluene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
1,2,4-Trimethylbenzene	0.14	U	1.0	0.14	ug/L			05/16/12 13:24	1
sec-Butylbenzene	0.12	U	1.0	0.12	ug/L			05/16/12 13:24	1
1,3-Dichlorobenzene	0.13	U	1.0	0.13	ug/L			05/16/12 13:24	1
1,4-Dichlorobenzene	0.11	U	1.0	0.11	ug/L			05/16/12 13:24	1
1,2-Dichlorobenzene	0.10	U	1.0	0.10	ug/L			05/16/12 13:24	1
n-Butylbenzene	0.16	U	1.0	0.16	ug/L			05/16/12 13:24	1
1,2-Dibromo-3-Chloropropane	0.81	U	1.0	0.81	ug/L			05/16/12 13:24	1
1,2,4-Trichlorobenzene	0.31	U	1.0	0.31	ug/L			05/16/12 13:24	1
Hexachlorobutadiene	0.17	U	1.0	0.17	ug/L			05/16/12 13:24	1
Naphthalene	0.32	U	1.0	0.32	ug/L			05/16/12 13:24	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		67 - 139		05/16/12 13:24	1
Dibromofluoromethane	82		62 - 130		05/16/12 13:24	1
Toluene-d8 (Surr)	84		70 - 130		05/16/12 13:24	1
1,2-Dichloroethane-d4 (Surr)	80		50 - 134		05/16/12 13:24	1

Lab Sample ID: LCS 600-79394/3

Matrix: Water

Analysis Batch: 79394

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	10.0	31.2	*	ug/L		312	12 - 136
Chloromethane	10.0	14.8		ug/L		148	32 - 151
Vinyl chloride	10.0	12.2		ug/L		122	47 - 146
Bromomethane	10.0	12.6		ug/L		126	52 - 146
Chloroethane	10.0	11.6		ug/L		116	56 - 144
Trichlorofluoromethane	10.0	12.4		ug/L		124	55 - 142
1,1-Dichloroethene	10.0	10.4		ug/L		104	59 - 145
trans-1,2-Dichloroethene	10.0	10.1		ug/L		101	70 - 132
Methyl tert-butyl ether	10.0	9.20		ug/L		92	63 - 142
Acetone	20.0	15.9		ug/L		80	28 - 152
Iodomethane	10.0	9.30		ug/L		93	17 - 197
Carbon disulfide	10.0	10.3		ug/L		103	32 - 177
Methylene Chloride	10.0	10.3		ug/L		103	62 - 134
cis-1,2-Dichloroethene	10.0	9.27		ug/L		93	69 - 129
2-Butanone (MEK)	20.0	15.5		ug/L		77	59 - 133
Carbon tetrachloride	10.0	11.1		ug/L		111	59 - 147
Benzene	10.0	9.45		ug/L		94	69 - 131
1,2-Dichloroethane	10.0	10.2		ug/L		102	66 - 140
Trichloroethene	10.0	9.35		ug/L		94	68 - 130
1,1,1-Trichloroethane	10.0	10.7		ug/L		107	65 - 142
1,1-Dichloroethane	10.0	10.0		ug/L		100	66 - 126
1,2-Dichloropropane	10.0	9.67		ug/L		97	72 - 125
2,2-Dichloropropane	10.0	11.2		ug/L		112	43 - 169

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 600-79394/3

Matrix: Water

Analysis Batch: 79394

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibromomethane	10.0	9.58		ug/L		96	68 - 134
Chloroform	10.0	9.65		ug/L		96	69 - 128
Bromodichloromethane	10.0	9.71		ug/L		97	73 - 130
1,1-Dichloropropene	10.0	9.59		ug/L		96	59 - 134
cis-1,3-Dichloropropene	10.0	9.95		ug/L		100	60 - 135
4-Methyl-2-pentanone (MIBK)	20.0	19.3		ug/L		97	56 - 142
Toluene	10.0	9.15		ug/L		91	67 - 130
trans-1,3-Dichloropropene	10.0	10.6		ug/L		106	63 - 133
1,1,2-Trichloroethane	10.0	9.57		ug/L		96	68 - 130
Tetrachloroethene	10.0	9.34		ug/L		93	61 - 142
1,3-Dichloropropane	10.0	9.45		ug/L		95	62 - 132
2-Hexanone	20.0	18.7		ug/L		94	51 - 130
Dibromochloromethane	10.0	9.83		ug/L		98	58 - 132
1,2-Dibromoethane	10.0	9.56		ug/L		96	68 - 128
Chlorobenzene	10.0	9.10		ug/L		91	60 - 136
1,1,1,2-Tetrachloroethane	10.0	9.55		ug/L		96	57 - 136
Ethylbenzene	10.0	9.08		ug/L		91	68 - 128
Xylenes, Total	30.0	27.5		ug/L		92	68 - 132
Styrene	10.0	9.60		ug/L		96	68 - 133
Bromoform	10.0	9.75		ug/L		98	39 - 149
Isopropylbenzene	10.0	10.7		ug/L		107	79 - 146
Bromobenzene	10.0	8.83		ug/L		88	61 - 134
1,2,3-Trichloropropane	10.0	9.20		ug/L		92	52 - 157
1,1,2,2-Tetrachloroethane	10.0	9.94		ug/L		99	68 - 134
N-Propylbenzene	10.0	9.29		ug/L		93	61 - 137
2-Chlorotoluene	10.0	9.01		ug/L		90	58 - 135
4-Chlorotoluene	10.0	9.38		ug/L		94	64 - 134
1,3,5-Trimethylbenzene	10.0	9.17		ug/L		92	63 - 132
tert-Butylbenzene	10.0	9.96		ug/L		100	67 - 148
4-Isopropyltoluene	10.0	9.93		ug/L		99	63 - 138
1,2,4-Trimethylbenzene	10.0	9.18		ug/L		92	63 - 131
sec-Butylbenzene	10.0	9.32		ug/L		93	61 - 134
1,3-Dichlorobenzene	10.0	9.30		ug/L		93	71 - 132
1,4-Dichlorobenzene	10.0	9.09		ug/L		91	72 - 131
1,2-Dichlorobenzene	10.0	9.08		ug/L		91	71 - 133
n-Butylbenzene	10.0	9.60		ug/L		96	62 - 132
1,2-Dibromo-3-Chloropropane	10.0	13.0		ug/L		130	43 - 141
1,2,4-Trichlorobenzene	10.0	9.96		ug/L		100	55 - 151
Hexachlorobutadiene	10.0	9.11		ug/L		91	53 - 140
Naphthalene	10.0	10.4		ug/L		104	19 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	100		67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	85		70 - 130
1,2-Dichloroethane-d4 (Surr)	80		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Batch: 79394

Client Sample ID: MW-7

Prep Type: Total/NA

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec.
	Result	Qualifier	Added	Result	Qualifier				Limits
Dichlorodifluoromethane	0.12	U *	10.0	23.1	F	ug/L		231	60 - 140
Chloromethane	0.18	U	10.0	11.8		ug/L		118	60 - 140
Vinyl chloride	0.11	U	10.0	9.97		ug/L		100	60 - 140
Bromomethane	0.25	U	10.0	10.6		ug/L		106	60 - 140
Chloroethane	0.080	U	10.0	10.7		ug/L		107	60 - 140
Trichlorofluoromethane	0.080	U	10.0	12.5		ug/L		125	60 - 140
1,1-Dichloroethene	0.19	U	10.0	10.6		ug/L		106	22 - 143
trans-1,2-Dichloroethene	0.090	U	10.0	10.2		ug/L		102	60 - 140
Methyl tert-butyl ether	1.4		10.0	10.4		ug/L		90	60 - 140
Acetone	0.99	U	20.0	16.4		ug/L		82	60 - 140
Iodomethane	2.0	U	10.0	8.77		ug/L		88	60 - 140
Carbon disulfide	0.24	U	10.0	10.4		ug/L		104	60 - 140
Methylene Chloride	0.15	U	10.0	9.02		ug/L		90	60 - 140
cis-1,2-Dichloroethene	0.060	U	10.0	9.34		ug/L		93	60 - 140
2-Butanone (MEK)	0.76	U	20.0	18.7		ug/L		94	60 - 140
Carbon tetrachloride	0.15	U	10.0	11.2		ug/L		112	60 - 140
Benzene	0.14	J	10.0	9.88		ug/L		97	65 - 125
1,2-Dichloroethane	0.14	U	10.0	10.3		ug/L		103	60 - 140
Trichloroethene	0.18	U	10.0	9.75		ug/L		98	56 - 118
1,1,1-Trichloroethane	0.15	U	10.0	10.6		ug/L		106	60 - 140
1,1-Dichloroethane	0.11	U	10.0	9.91		ug/L		99	60 - 140
1,2-Dichloropropane	0.16	U	10.0	10.0		ug/L		100	60 - 140
2,2-Dichloropropane	0.13	U	10.0	10.7		ug/L		107	60 - 140
Dibromomethane	0.52	U	10.0	10.7		ug/L		107	60 - 140
Chloroform	0.13	U	10.0	9.71		ug/L		97	60 - 140
Bromodichloromethane	0.16	U	10.0	9.47		ug/L		95	60 - 140
1,1-Dichloropropene	0.21	U	10.0	10.0		ug/L		100	60 - 140
cis-1,3-Dichloropropene	0.18	U	10.0	9.77		ug/L		98	60 - 140
4-Methyl-2-pentanone (MIBK)	0.45	U	20.0	19.3		ug/L		97	60 - 140
Toluene	0.15	U	10.0	9.51		ug/L		95	76 - 125
trans-1,3-Dichloropropene	0.21	U	10.0	10.9		ug/L		109	60 - 140
1,1,2-Trichloroethane	0.28	U	10.0	9.30		ug/L		93	60 - 140
Tetrachloroethene	0.13	U	10.0	9.80		ug/L		98	60 - 140
1,3-Dichloropropane	0.22	U	10.0	9.59		ug/L		96	60 - 140
2-Hexanone	0.35	U	20.0	19.3		ug/L		97	60 - 140
Dibromochloromethane	0.15	U	10.0	9.76		ug/L		98	60 - 140
1,2-Dibromoethane	0.18	U	10.0	9.93		ug/L		99	60 - 140
Chlorobenzene	0.12	U	10.0	9.58		ug/L		96	72 - 122
1,1,1,2-Tetrachloroethane	0.18	U	10.0	9.80		ug/L		98	60 - 140
Ethylbenzene	0.11	U	10.0	9.45		ug/L		94	60 - 140
Xylenes, Total	0.26	U	30.0	29.0		ug/L		97	60 - 140
Styrene	0.070	U	10.0	9.87		ug/L		99	60 - 140
Bromoform	0.19	U	10.0	9.52		ug/L		95	60 - 140
Isopropylbenzene	0.18	U	10.0	11.3		ug/L		113	60 - 140
Bromobenzene	0.19	U	10.0	9.40		ug/L		94	60 - 140
1,2,3-Trichloropropane	0.29	U	10.0	9.39		ug/L		94	60 - 140
1,1,2,2-Tetrachloroethane	0.22	U	10.0	10.1		ug/L		101	60 - 140
N-Propylbenzene	0.15	U	10.0	9.99		ug/L		100	60 - 140
2-Chlorotoluene	0.13	U	10.0	9.51		ug/L		95	60 - 140

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Batch: 79394

Client Sample ID: MW-7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene	0.14	U	10.0	9.86		ug/L		99	60 - 140
1,3,5-Trimethylbenzene	0.10	U	10.0	9.51		ug/L		95	60 - 140
tert-Butylbenzene	0.080	U	10.0	10.5		ug/L		105	60 - 140
4-Isopropyltoluene	0.10	U	10.0	10.4		ug/L		104	60 - 140
1,2,4-Trimethylbenzene	0.14	U	10.0	9.58		ug/L		96	60 - 140
sec-Butylbenzene	0.12	U	10.0	10.1		ug/L		101	60 - 140
1,3-Dichlorobenzene	0.13	U	10.0	9.70		ug/L		97	60 - 140
1,4-Dichlorobenzene	0.11	U	10.0	9.60		ug/L		96	60 - 140
1,2-Dichlorobenzene	0.10	U	10.0	9.25		ug/L		93	60 - 140
n-Butylbenzene	0.16	U	10.0	10.1		ug/L		101	60 - 140
1,2-Dibromo-3-Chloropropane	0.81	U	10.0	13.2		ug/L		132	60 - 140
1,2,4-Trichlorobenzene	0.31	U	10.0	9.35		ug/L		93	60 - 140
Hexachlorobutadiene	0.17	U	10.0	9.57		ug/L		96	60 - 140
Naphthalene	0.32	U	10.0	8.32		ug/L		83	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	101		67 - 139
Dibromofluoromethane	85		62 - 130
Toluene-d8 (Surr)	85		70 - 130
1,2-Dichloroethane-d4 (Surr)	82		50 - 134

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79394

Client Sample ID: MW-7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	0.12	U *	10.0	23.5	F	ug/L		235	60 - 140	2	30
Chloromethane	0.18	U	10.0	11.6		ug/L		116	60 - 140	1	30
Vinyl chloride	0.11	U	10.0	10.4		ug/L		104	60 - 140	4	30
Bromomethane	0.25	U	10.0	11.4		ug/L		114	60 - 140	7	30
Chloroethane	0.080	U	10.0	11.0		ug/L		110	60 - 140	2	30
Trichlorofluoromethane	0.080	U	10.0	12.6		ug/L		126	60 - 140	1	30
1,1-Dichloroethene	0.19	U	10.0	10.7		ug/L		107	22 - 143	1	30
trans-1,2-Dichloroethene	0.090	U	10.0	10.8		ug/L		108	60 - 140	5	30
Methyl tert-butyl ether	1.4		10.0	10.8		ug/L		94	60 - 140	4	30
Acetone	0.99	U	20.0	17.3		ug/L		87	60 - 140	5	30
Iodomethane	2.0	U	10.0	8.90		ug/L		89	60 - 140	2	30
Carbon disulfide	0.24	U	10.0	10.6		ug/L		106	60 - 140	2	30
Methylene Chloride	0.15	U	10.0	9.36		ug/L		94	60 - 140	4	30
cis-1,2-Dichloroethene	0.060	U	10.0	9.44		ug/L		94	60 - 140	1	30
2-Butanone (MEK)	0.76	U	20.0	17.7		ug/L		88	60 - 140	6	30
Carbon tetrachloride	0.15	U	10.0	11.7		ug/L		117	60 - 140	5	30
Benzene	0.14	J	10.0	9.94		ug/L		98	65 - 125	1	30
1,2-Dichloroethane	0.14	U	10.0	10.2		ug/L		102	60 - 140	1	30
Trichloroethene	0.18	U	10.0	9.69		ug/L		97	56 - 118	1	30
1,1,1-Trichloroethane	0.15	U	10.0	11.1		ug/L		111	60 - 140	5	30
1,1-Dichloroethane	0.11	U	10.0	10.3		ug/L		103	60 - 140	4	30
1,2-Dichloropropane	0.16	U	10.0	9.95		ug/L		100	60 - 140	1	30
2,2-Dichloropropane	0.13	U	10.0	11.8		ug/L		118	60 - 140	10	30

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79394

Client Sample ID: MW-7

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dibromomethane	0.52	U	10.0	10.5		ug/L		105	60 - 140	2	30
Chloroform	0.13	U	10.0	10.1		ug/L		101	60 - 140	4	30
Bromodichloromethane	0.16	U	10.0	10.3		ug/L		103	60 - 140	8	30
1,1-Dichloropropene	0.21	U	10.0	10.2		ug/L		102	60 - 140	2	30
cis-1,3-Dichloropropene	0.18	U	10.0	10.5		ug/L		105	60 - 140	7	30
4-Methyl-2-pentanone (MIBK)	0.45	U	20.0	20.2		ug/L		101	60 - 140	4	30
Toluene	0.15	U	10.0	9.81		ug/L		98	76 - 125	3	30
trans-1,3-Dichloropropene	0.21	U	10.0	11.8		ug/L		118	60 - 140	8	30
1,1,2-Trichloroethane	0.28	U	10.0	10.5		ug/L		105	60 - 140	13	30
Tetrachloroethene	0.13	U	10.0	9.98		ug/L		100	60 - 140	2	30
1,3-Dichloropropane	0.22	U	10.0	10.1		ug/L		101	60 - 140	6	30
2-Hexanone	0.35	U	20.0	19.8		ug/L		99	60 - 140	2	30
Dibromochloromethane	0.15	U	10.0	10.4		ug/L		104	60 - 140	6	30
1,2-Dibromoethane	0.18	U	10.0	10.2		ug/L		102	60 - 140	3	30
Chlorobenzene	0.12	U	10.0	9.71		ug/L		97	72 - 122	1	30
1,1,1,2-Tetrachloroethane	0.18	U	10.0	10.3		ug/L		103	60 - 140	5	30
Ethylbenzene	0.11	U	10.0	9.73		ug/L		97	60 - 140	3	30
Xylenes, Total	0.26	U	30.0	29.8		ug/L		99	60 - 140	3	30
Styrene	0.070	U	10.0	10.2		ug/L		102	60 - 140	4	30
Bromoform	0.19	U	10.0	10.2		ug/L		102	60 - 140	7	30
Isopropylbenzene	0.18	U	10.0	11.5		ug/L		115	60 - 140	2	30
Bromobenzene	0.19	U	10.0	9.43		ug/L		94	60 - 140	0	30
1,2,3-Trichloropropane	0.29	U	10.0	9.98		ug/L		100	60 - 140	6	30
1,1,2,2-Tetrachloroethane	0.22	U	10.0	10.3		ug/L		103	60 - 140	1	30
N-Propylbenzene	0.15	U	10.0	9.98		ug/L		100	60 - 140	0	30
2-Chlorotoluene	0.13	U	10.0	9.57		ug/L		96	60 - 140	1	30
4-Chlorotoluene	0.14	U	10.0	9.88		ug/L		99	60 - 140	0	30
1,3,5-Trimethylbenzene	0.10	U	10.0	9.71		ug/L		97	60 - 140	2	30
tert-Butylbenzene	0.080	U	10.0	10.7		ug/L		107	60 - 140	2	30
4-Isopropyltoluene	0.10	U	10.0	10.6		ug/L		106	60 - 140	2	30
1,2,4-Trimethylbenzene	0.14	U	10.0	9.70		ug/L		97	60 - 140	1	30
sec-Butylbenzene	0.12	U	10.0	10.2		ug/L		102	60 - 140	1	30
1,3-Dichlorobenzene	0.13	U	10.0	9.76		ug/L		98	60 - 140	1	30
1,4-Dichlorobenzene	0.11	U	10.0	9.71		ug/L		97	60 - 140	1	30
1,2-Dichlorobenzene	0.10	U	10.0	9.53		ug/L		95	60 - 140	3	30
n-Butylbenzene	0.16	U	10.0	10.4		ug/L		104	60 - 140	3	30
1,2-Dibromo-3-Chloropropane	0.81	U	10.0	13.4		ug/L		134	60 - 140	2	30
1,2,4-Trichlorobenzene	0.31	U	10.0	10.4		ug/L		104	60 - 140	11	30
Hexachlorobutadiene	0.17	U	10.0	10.5		ug/L		105	60 - 140	9	30
Naphthalene	0.32	U	10.0	11.0		ug/L		110	60 - 140	27	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene	98		67 - 139
Dibromofluoromethane	86		62 - 130
Toluene-d8 (Surr)	85		70 - 130
1,2-Dichloroethane-d4 (Surr)	78		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL

Lab Sample ID: 600-54909-3 MS

Matrix: Water

Analysis Batch: 79279

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane - DL	6.0		500	1610	F	ug/L		321	60 - 140
Chloromethane - DL	9.0		500	711	F	ug/L		142	60 - 140
Vinyl chloride - DL	5.5		500	605		ug/L		121	60 - 140
Bromomethane - DL	13		500	623		ug/L		125	60 - 140
Chloroethane - DL	4.0		500	612		ug/L		122	60 - 140
Trichlorofluoromethane - DL	4.0		500	695		ug/L		139	60 - 140
1,1-Dichloroethene - DL	9.5		500	568		ug/L		114	22 - 143
trans-1,2-Dichloroethene - DL	4.5		500	538		ug/L		108	60 - 140
Methyl tert-butyl ether - DL	460		500	939		ug/L		96	60 - 140
Acetone - DL	50		1000	973		ug/L		97	60 - 140
Iodomethane - DL	100		500	465		ug/L		93	60 - 140
Carbon disulfide - DL	12		500	546		ug/L		109	60 - 140
Methylene Chloride - DL	7.5		500	490		ug/L		98	60 - 140
cis-1,2-Dichloroethene - DL	3.0		500	476		ug/L		95	60 - 140
2-Butanone (MEK) - DL	38		1000	858		ug/L		86	60 - 140
Carbon tetrachloride - DL	7.5		500	563		ug/L		113	60 - 140
Benzene - DL	190		500	699		ug/L		101	65 - 125
1,2-Dichloroethane - DL	7.0		500	544		ug/L		109	60 - 140
Trichloroethene - DL	9.0		500	498		ug/L		100	56 - 118
1,1,1-Trichloroethane - DL	7.5		500	545		ug/L		109	60 - 140
1,1-Dichloroethane - DL	5.5		500	531		ug/L		106	60 - 140
1,2-Dichloropropane - DL	8.0		500	522		ug/L		104	60 - 140
2,2-Dichloropropane - DL	6.5		500	470		ug/L		94	60 - 140
Dibromomethane - DL	26		500	527		ug/L		105	60 - 140
Chloroform - DL	6.5		500	519		ug/L		104	60 - 140
Bromodichloromethane - DL	8.0		500	501		ug/L		100	60 - 140
1,1-Dichloropropene - DL	11		500	536		ug/L		107	60 - 140
cis-1,3-Dichloropropene - DL	9.0		500	511		ug/L		102	60 - 140
4-Methyl-2-pentanone (MIBK) - DL	23		1000	1020		ug/L		102	60 - 140
Toluene - DL	7.5		500	517		ug/L		103	76 - 125
trans-1,3-Dichloropropene - DL	11		500	546		ug/L		109	60 - 140
1,1,2-Trichloroethane - DL	14		500	530		ug/L		106	60 - 140
Tetrachloroethene - DL	6.5		500	529		ug/L		106	60 - 140
1,3-Dichloropropane - DL	11		500	486		ug/L		97	60 - 140
2-Hexanone - DL	18		1000	916		ug/L		92	60 - 140
Dibromochloromethane - DL	7.5		500	508		ug/L		102	60 - 140
1,2-Dibromoethane - DL	9.0		500	508		ug/L		102	60 - 140
Chlorobenzene - DL	6.0		500	499		ug/L		100	72 - 122
1,1,1,2-Tetrachloroethane - DL	9.0		500	509		ug/L		102	60 - 140
Ethylbenzene - DL	5.7		500	521		ug/L		103	60 - 140
Xylenes, Total - DL	13		1500	1570		ug/L		104	60 - 140
Styrene - DL	3.5		500	524		ug/L		105	60 - 140
Bromoform - DL	9.5		500	494		ug/L		99	60 - 140
Isopropylbenzene - DL	28		500	624		ug/L		119	60 - 140
Bromobenzene - DL	9.5		500	478		ug/L		96	60 - 140
1,2,3-Trichloropropane - DL	15		500	495		ug/L		99	60 - 140
1,1,2,2-Tetrachloroethane - DL	11		500	526		ug/L		105	60 - 140
N-Propylbenzene - DL	33		500	569		ug/L		107	60 - 140
2-Chlorotoluene - DL	6.5		500	500		ug/L		100	60 - 140

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Lab Sample ID: 600-54909-3 MS

Matrix: Water

Analysis Batch: 79279

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
4-Chlorotoluene - DL	7.0		500	519		ug/L		104	60 - 140
1,3,5-Trimethylbenzene - DL	5.0		500	503		ug/L		101	60 - 140
tert-Butylbenzene - DL	4.0		500	558		ug/L		112	60 - 140
4-Isopropyltoluene - DL	5.0		500	556		ug/L		111	60 - 140
1,2,4-Trimethylbenzene - DL	7.0		500	513		ug/L		103	60 - 140
sec-Butylbenzene - DL	6.0		500	533		ug/L		107	60 - 140
1,3-Dichlorobenzene - DL	6.5		500	495		ug/L		99	60 - 140
1,4-Dichlorobenzene - DL	5.5		500	493		ug/L		99	60 - 140
1,2-Dichlorobenzene - DL	5.0		500	492		ug/L		98	60 - 140
n-Butylbenzene - DL	12		500	544		ug/L		107	60 - 140
1,2-Dibromo-3-Chloropropane - DL	41		500	609		ug/L		122	60 - 140
1,2,4-Trichlorobenzene - DL	48		500	513		ug/L		93	60 - 140
Hexachlorobutadiene - DL	8.5		500	513		ug/L		103	60 - 140
Naphthalene - DL	110		500	518		ug/L		81	60 - 140

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene - DL	100		67 - 139
Dibromofluoromethane - DL	84		62 - 130
Toluene-d8 (Surr) - DL	88		70 - 130
1,2-Dichloroethane-d4 (Surr) - DL	78		50 - 134

Lab Sample ID: 600-54909-3 MSD

Matrix: Water

Analysis Batch: 79279

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane - DL	6.0		500	1490	F	ug/L		298	60 - 140	7	30
Chloromethane - DL	9.0		500	632		ug/L		126	60 - 140	12	30
Vinyl chloride - DL	5.5		500	536		ug/L		107	60 - 140	12	30
Bromomethane - DL	13		500	561		ug/L		112	60 - 140	10	30
Chloroethane - DL	4.0		500	541		ug/L		108	60 - 140	12	30
Trichlorofluoromethane - DL	4.0		500	599		ug/L		120	60 - 140	15	30
1,1-Dichloroethene - DL	9.5		500	513		ug/L		103	22 - 143	10	30
trans-1,2-Dichloroethene - DL	4.5		500	490		ug/L		98	60 - 140	9	30
Methyl tert-butyl ether - DL	460		500	867		ug/L		82	60 - 140	8	30
Acetone - DL	50		1000	938		ug/L		94	60 - 140	4	30
Iodomethane - DL	100		500	421		ug/L		84	60 - 140	10	30
Carbon disulfide - DL	12		500	486		ug/L		97	60 - 140	12	30
Methylene Chloride - DL	7.5		500	452		ug/L		90	60 - 140	8	30
cis-1,2-Dichloroethene - DL	3.0		500	427		ug/L		85	60 - 140	11	30
2-Butanone (MEK) - DL	38		1000	744		ug/L		74	60 - 140	14	30
Carbon tetrachloride - DL	7.5		500	548		ug/L		110	60 - 140	3	30
Benzene - DL	190		500	662		ug/L		94	65 - 125	5	30
1,2-Dichloroethane - DL	7.0		500	468		ug/L		94	60 - 140	15	30
Trichloroethene - DL	9.0		500	442		ug/L		88	56 - 118	12	30
1,1,1-Trichloroethane - DL	7.5		500	506		ug/L		101	60 - 140	7	30
1,1-Dichloroethane - DL	5.5		500	482		ug/L		96	60 - 140	10	30
1,2-Dichloropropane - DL	8.0		500	470		ug/L		94	60 - 140	11	30

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8260B - Volatile Organic Compounds (GC/MS) - DL (Continued)

Lab Sample ID: 600-54909-3 MSD

Matrix: Water

Analysis Batch: 79279

Client Sample ID: MW-5

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,2-Dichloropropane - DL	6.5		500	455		ug/L		91	60 - 140	3	30
Dibromomethane - DL	26		500	471		ug/L		94	60 - 140	11	30
Chloroform - DL	6.5		500	446		ug/L		89	60 - 140	15	30
Bromodichloromethane - DL	8.0		500	463		ug/L		93	60 - 140	8	30
1,1-Dichloropropene - DL	11		500	466		ug/L		93	60 - 140	14	30
cis-1,3-Dichloropropene - DL	9.0		500	454		ug/L		91	60 - 140	12	30
4-Methyl-2-pentanone (MIBK) - DL	23		1000	845		ug/L		85	60 - 140	18	30
Toluene - DL	7.5		500	440		ug/L		88	76 - 125	16	30
trans-1,3-Dichloropropene - DL	11		500	514		ug/L		103	60 - 140	6	30
1,1,2-Trichloroethane - DL	14		500	430		ug/L		86	60 - 140	21	30
Tetrachloroethene - DL	6.5		500	465		ug/L		93	60 - 140	13	30
1,3-Dichloropropane - DL	11		500	427		ug/L		85	60 - 140	13	30
2-Hexanone - DL	18		1000	883		ug/L		88	60 - 140	4	30
Dibromochloromethane - DL	7.5		500	467		ug/L		93	60 - 140	8	30
1,2-Dibromoethane - DL	9.0		500	450		ug/L		90	60 - 140	12	30
Chlorobenzene - DL	6.0		500	421		ug/L		84	72 - 122	17	30
1,1,1,2-Tetrachloroethane - DL	9.0		500	457		ug/L		91	60 - 140	11	30
Ethylbenzene - DL	5.7		500	439		ug/L		87	60 - 140	17	30
Xylenes, Total - DL	13		1500	1340		ug/L		89	60 - 140	16	30
Styrene - DL	3.5		500	457		ug/L		91	60 - 140	14	30
Bromoform - DL	9.5		500	469		ug/L		94	60 - 140	5	30
Isopropylbenzene - DL	28		500	556		ug/L		106	60 - 140	11	30
Bromobenzene - DL	9.5		500	415		ug/L		83	60 - 140	14	30
1,2,3-Trichloropropane - DL	15		500	425		ug/L		85	60 - 140	15	30
1,1,2,2-Tetrachloroethane - DL	11		500	455		ug/L		91	60 - 140	14	30
N-Propylbenzene - DL	33		500	494		ug/L		92	60 - 140	14	30
2-Chlorotoluene - DL	6.5		500	437		ug/L		87	60 - 140	13	30
4-Chlorotoluene - DL	7.0		500	447		ug/L		89	60 - 140	15	30
1,3,5-Trimethylbenzene - DL	5.0		500	438		ug/L		88	60 - 140	14	30
tert-Butylbenzene - DL	4.0		500	484		ug/L		97	60 - 140	14	30
4-Isopropyltoluene - DL	5.0		500	478		ug/L		96	60 - 140	15	30
1,2,4-Trimethylbenzene - DL	7.0		500	441		ug/L		88	60 - 140	15	30
sec-Butylbenzene - DL	6.0		500	463		ug/L		93	60 - 140	14	30
1,3-Dichlorobenzene - DL	6.5		500	442		ug/L		88	60 - 140	11	30
1,4-Dichlorobenzene - DL	5.5		500	433		ug/L		87	60 - 140	13	30
1,2-Dichlorobenzene - DL	5.0		500	433		ug/L		87	60 - 140	13	30
n-Butylbenzene - DL	12		500	469		ug/L		91	60 - 140	15	30
1,2-Dibromo-3-Chloropropane - DL	41		500	643		ug/L		129	60 - 140	5	30
1,2,4-Trichlorobenzene - DL	48		500	505		ug/L		91	60 - 140	1	30
Hexachlorobutadiene - DL	8.5		500	492		ug/L		98	60 - 140	4	30
Naphthalene - DL	110		500	561		ug/L		90	60 - 140	8	30

Surrogate	MSD %Recovery	MSD Qualifier	Limits
4-Bromofluorobenzene - DL	97		67 - 139
Dibromofluoromethane - DL	84		62 - 130
Toluene-d8 (Surr) - DL	86		70 - 130
1,2-Dichloroethane-d4 (Surr) - DL	78		50 - 134

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels

Lab Sample ID: MB 600-79421/1-A

Matrix: Water

Analysis Batch: 79549

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79421

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Aniline	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
Phenol	0.040	U	1.5	0.040	ug/L		05/16/12 15:10	05/17/12 18:10	1
Bis(2-chloroethyl)ether	0.15	U	1.5	0.15	ug/L		05/16/12 15:10	05/17/12 18:10	1
2-Chlorophenol	0.13	U	2.0	0.13	ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzyl alcohol	0.17	U	5.5	0.17	ug/L		05/16/12 15:10	05/17/12 18:10	1
Bis(2-chloroisopropyl) ether	0.40	U	1.5	0.40	ug/L		05/16/12 15:10	05/17/12 18:10	1
3 & 4 Methylphenol	0.20	U	1.0	0.20	ug/L		05/16/12 15:10	05/17/12 18:10	1
N-Nitrosodi-n-propylamine	0.10	U	2.5	0.10	ug/L		05/16/12 15:10	05/17/12 18:10	1
Hexachloroethane	0.10	U	2.0	0.10	ug/L		05/16/12 15:10	05/17/12 18:10	1
Nitrobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/17/12 18:10	1
Isophorone	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/17/12 18:10	1
2-Nitrophenol	0.22	U	1.0	0.22	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4-Dimethylphenol	0.31	U	2.5	0.31	ug/L		05/16/12 15:10	05/17/12 18:10	1
Bis(2-chloroethoxy)methane	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4-Dichlorophenol	0.15	U	2.5	0.15	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Chloroaniline	0.21	U	1.0	0.21	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Chloro-3-methylphenol	0.17	U	1.0	0.17	ug/L		05/16/12 15:10	05/17/12 18:10	1
2-Methylnaphthalene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
Hexachlorocyclopentadiene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4,6-Trichlorophenol	0.18	U	2.0	0.18	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4,5-Trichlorophenol	0.25	U	2.0	0.25	ug/L		05/16/12 15:10	05/17/12 18:10	1
2-Chloronaphthalene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
2-Nitroaniline	0.19	U	2.5	0.19	ug/L		05/16/12 15:10	05/17/12 18:10	1
Dimethyl phthalate	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,6-Dinitrotoluene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
3-Nitroaniline	0.16	U	2.5	0.16	ug/L		05/16/12 15:10	05/17/12 18:10	1
Acenaphthene	0.080	U	1.0	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4-Dinitrophenol	0.39	U	5.0	0.39	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Nitrophenol	0.56	U	2.5	0.56	ug/L		05/16/12 15:10	05/17/12 18:10	1
Dibenzofuran	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
2,4-Dinitrotoluene	0.13	U	1.5	0.13	ug/L		05/16/12 15:10	05/17/12 18:10	1
Diethyl phthalate	1.5	U	2.5	1.5	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Chlorophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/16/12 15:10	05/17/12 18:10	1
Fluorene	0.070	U	1.5	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Nitroaniline	0.25	U	2.5	0.25	ug/L		05/16/12 15:10	05/17/12 18:10	1
4,6-Dinitro-2-methylphenol	0.83	U	2.5	0.83	ug/L		05/16/12 15:10	05/17/12 18:10	1
4-Bromophenyl phenyl ether	0.10	U	1.5	0.10	ug/L		05/16/12 15:10	05/17/12 18:10	1
Hexachlorobenzene	0.11	U	1.5	0.11	ug/L		05/16/12 15:10	05/17/12 18:10	1
Pentachlorophenol	0.61	U	2.5	0.61	ug/L		05/16/12 15:10	05/17/12 18:10	1
Phenanthrene	0.060	U	1.5	0.060	ug/L		05/16/12 15:10	05/17/12 18:10	1
Anthracene	0.050	U	1.0	0.050	ug/L		05/16/12 15:10	05/17/12 18:10	1
Di-n-butyl phthalate	0.11	U	2.5	0.11	ug/L		05/16/12 15:10	05/17/12 18:10	1
Fluoranthene	0.070	U	2.5	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
Pyrene	0.11	U	2.0	0.11	ug/L		05/16/12 15:10	05/17/12 18:10	1
Butyl benzyl phthalate	0.143	J	2.5	0.12	ug/L		05/16/12 15:10	05/17/12 18:10	1
3,3'-Dichlorobenzidine	0.18	U	10	0.18	ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzo[a]anthracene	0.080	U	2.0	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
Bis(2-ethylhexyl) phthalate	0.37	U	2.5	0.37	ug/L		05/16/12 15:10	05/17/12 18:10	1

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: MB 600-79421/1-A

Matrix: Water

Analysis Batch: 79549

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79421

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Chrysene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
Di-n-octyl phthalate	0.16	U	5.0	0.16	ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzo[b]fluoranthene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzo[k]fluoranthene	0.090	U	2.0	0.090	ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzo[a]pyrene	0.080	U	1.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
Indeno[1,2,3-cd]pyrene	0.070	U	2.0	0.070	ug/L		05/16/12 15:10	05/17/12 18:10	1
Dibenz(a,h)anthracene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1
Benzo[g,h,i]perylene	0.080	U	2.5	0.080	ug/L		05/16/12 15:10	05/17/12 18:10	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Phenol-d6	25		10 - 94	05/16/12 15:10	05/17/12 18:10	1
2,4,6-Tribromophenol	79		10 - 123	05/16/12 15:10	05/17/12 18:10	1
2-Fluorobiphenyl	98		43 - 116	05/16/12 15:10	05/17/12 18:10	1
2-Fluorophenol	43		10 - 100	05/16/12 15:10	05/17/12 18:10	1
Nitrobenzene-d5	96		35 - 114	05/16/12 15:10	05/17/12 18:10	1
Terphenyl-d14	93		33 - 141	05/16/12 15:10	05/17/12 18:10	1

Lab Sample ID: LCS 600-79421/2-A

Matrix: Water

Analysis Batch: 79549

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aniline	10.0	5.78		ug/L		58	13 - 100
Phenol	10.0	2.92		ug/L		29	11 - 112
Bis(2-chloroethyl)ether	10.0	9.33		ug/L		93	40 - 112
2-Chlorophenol	10.0	9.08		ug/L		91	23 - 134
Benzyl alcohol	10.0	7.02		ug/L		70	39 - 115
Bis(2-chloroisopropyl) ether	10.0	9.72		ug/L		97	41 - 111
3 & 4 Methylphenol	10.0	6.60		ug/L		66	27 - 113
N-Nitrosodi-n-propylamine	10.0	9.84		ug/L		98	39 - 124
Hexachloroethane	10.0	9.39		ug/L		94	43 - 118
Nitrobenzene	10.0	10.2		ug/L		102	42 - 119
Isophorone	10.0	9.56		ug/L		96	42 - 116
2-Nitrophenol	10.0	10.7		ug/L		107	40 - 121
2,4-Dimethylphenol	10.0	9.92		ug/L		99	36 - 109
Bis(2-chloroethoxy)methane	10.0	9.99		ug/L		100	42 - 119
2,4-Dichlorophenol	10.0	9.89		ug/L		99	39 - 118
4-Chloroaniline	10.0	9.02		ug/L		90	19 - 129
4-Chloro-3-methylphenol	10.0	9.79		ug/L		98	44 - 131
2-Methylnaphthalene	10.0	10.0		ug/L		100	40 - 121
Hexachlorocyclopentadiene	10.0	7.68		ug/L		77	21 - 126
2,4,6-Trichlorophenol	10.0	9.88		ug/L		99	39 - 123
2,4,5-Trichlorophenol	10.0	10.7		ug/L		107	38 - 145
2-Chloronaphthalene	10.0	9.48		ug/L		95	43 - 120
2-Nitroaniline	10.0	11.0		ug/L		110	42 - 130
Dimethyl phthalate	10.0	10.2		ug/L		102	49 - 121
Acenaphthylene	10.0	10.2		ug/L		102	35 - 135
2,6-Dinitrotoluene	10.0	10.5		ug/L		105	45 - 122
3-Nitroaniline	10.0	10.0		ug/L		100	47 - 138

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: LCS 600-79421/2-A

Matrix: Water

Analysis Batch: 79549

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	10.0	9.54		ug/L		95	47 - 145
2,4-Dinitrophenol	10.0	12.5		ug/L		125	23 - 130
4-Nitrophenol	10.0	2.84		ug/L		28	14 - 132
Dibenzofuran	10.0	10.0		ug/L		100	46 - 123
2,4-Dinitrotoluene	10.0	10.9		ug/L		109	43 - 128
Diethyl phthalate	10.0	10.7		ug/L		107	51 - 123
4-Chlorophenyl phenyl ether	10.0	10.1		ug/L		101	48 - 125
Fluorene	10.0	10.1		ug/L		101	48 - 127
4-Nitroaniline	10.0	10.6		ug/L		106	32 - 139
4,6-Dinitro-2-methylphenol	10.0	8.19		ug/L		82	24 - 122
4-Bromophenyl phenyl ether	10.0	9.95		ug/L		100	46 - 129
Hexachlorobenzene	10.0	9.84		ug/L		98	46 - 129
Pentachlorophenol	10.0	9.09		ug/L		91	9 - 147
Phenanthrene	10.0	10.4		ug/L		104	52 - 121
Anthracene	10.0	10.5		ug/L		105	53 - 124
Di-n-butyl phthalate	10.0	11.3		ug/L		113	54 - 138
Fluoranthene	10.0	10.3		ug/L		103	53 - 127
Pyrene	10.0	9.68		ug/L		97	49 - 121
Butyl benzyl phthalate	10.0	11.3		ug/L		113	50 - 126
3,3'-Dichlorobenzidine	10.0	10.8		ug/L		108	38 - 168
Benzo[a]anthracene	10.0	10.0		ug/L		100	53 - 122
Bis(2-ethylhexyl) phthalate	10.0	10.7		ug/L		107	47 - 132
Chrysene	10.0	10.2		ug/L		102	49 - 124
Di-n-octyl phthalate	10.0	9.91		ug/L		99	27 - 157
Benzo[b]fluoranthene	10.0	9.78		ug/L		98	53 - 131
Benzo[k]fluoranthene	10.0	10.2		ug/L		102	46 - 130
Benzo[a]pyrene	10.0	10.3		ug/L		103	50 - 124
Indeno[1,2,3-cd]pyrene	10.0	10.8		ug/L		108	45 - 124
Dibenz(a,h)anthracene	10.0	10.2		ug/L		102	42 - 134
Benzo[g,h,i]perylene	10.0	11.3		ug/L		113	46 - 133

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Phenol-d6	24		10 - 94
2,4,6-Tribromophenol	89		10 - 123
2-Fluorobiphenyl	93		43 - 116
2-Fluorophenol	41		10 - 100
Nitrobenzene-d5	91		35 - 114
Terphenyl-d14	90		33 - 141

Lab Sample ID: 600-54909-3 MS

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aniline	0.39	U	9.85	4.07	J	ug/L		41	10 - 130
Phenol	1.2	J	9.85	3.45	J	ug/L		23	10 - 62
Bis(2-chloroethyl)ether	0.74	U	9.85	9.19		ug/L		93	20 - 107
2-Chlorophenol	0.64	U	9.85	8.19	J	ug/L		83	36 - 96
Benzyl alcohol	0.84	U	9.85	5.84	J	ug/L		59	17 - 111

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54909-3 MS

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Bis(2-chloroisopropyl) ether	2.0	U	9.85	9.33		ug/L		95	50 - 130
3 & 4 Methylphenol	0.99	U	9.85	6.15		ug/L		62	12 - 111
N-Nitrosodi-n-propylamine	0.49	U	9.85	9.18	J	ug/L		93	44 - 110
Hexachloroethane	0.49	U	9.85	11.1	F	ug/L		113	35 - 101
Nitrobenzene	0.54	U	9.85	14.7	F	ug/L		149	37 - 104
Isophorone	0.54	U	9.85	8.90		ug/L		90	45 - 109
2-Nitrophenol	1.1	U	9.85	9.88		ug/L		100	48 - 100
2,4-Dimethylphenol	1.5	U	9.85	9.62	J F	ug/L		98	25 - 85
Bis(2-chloroethoxy)methane	0.64	U	9.85	10.3	F	ug/L		104	42 - 101
2,4-Dichlorophenol	0.74	U	9.85	9.10	J	ug/L		92	40 - 106
4-Chloroaniline	1.0	U	9.85	7.88		ug/L		80	49 - 151
4-Chloro-3-methylphenol	0.84	U	9.85	9.31		ug/L		95	67 - 133
2-Methylnaphthalene	260		9.85	316	4	ug/L		531	36 - 111
Hexachlorocyclopentadiene	0.64	U	9.85	7.14	J	ug/L		73	10 - 109
2,4,6-Trichlorophenol	0.89	U	9.85	10.2		ug/L		104	62 - 107
2,4,5-Trichlorophenol	1.2	U	9.85	9.47	J	ug/L		96	45 - 116
2-Chloronaphthalene	0.39	U	9.85	9.62		ug/L		98	42 - 100
2-Nitroaniline	0.94	U	9.85	15.4	F	ug/L		156	30 - 130
Dimethyl phthalate	0.34	U	9.85	9.86	J	ug/L		100	51 - 120
Acenaphthylene	0.30	U	9.85	11.0		ug/L		111	38 - 115
2,6-Dinitrotoluene	0.39	U	9.85	9.61		ug/L		98	47 - 118
3-Nitroaniline	0.79	U	9.85	10.2	J	ug/L		104	30 - 130
Acenaphthene	2.3	J	9.85	11.5		ug/L		93	46 - 118
2,4-Dinitrophenol	1.9	U	9.85	41.5	F	ug/L		422	40 - 140
4-Nitrophenol	2.8	U	9.85	23.9	F	ug/L		242	10 - 100
Dibenzofuran	1.2	J	9.85	10.6		ug/L		96	46 - 110
2,4-Dinitrotoluene	0.64	U	9.85	13.6	F	ug/L		138	41 - 125
Diethyl phthalate	7.4	U	9.85	11.1	J	ug/L		113	60 - 140
4-Chlorophenyl phenyl ether	0.49	U	9.85	9.75		ug/L		99	41 - 116
Fluorene	4.2	J	9.85	15.0		ug/L		110	44 - 112
4-Nitroaniline	1.2	U	9.85	4.96	J	ug/L		50	46 - 154
4,6-Dinitro-2-methylphenol	4.1	U	9.85	9.75	J	ug/L		99	28 - 128
4-Bromophenyl phenyl ether	0.49	U	9.85	9.69		ug/L		98	50 - 113
Hexachlorobenzene	0.54	U	9.85	8.89		ug/L		90	29 - 126
Pentachlorophenol	3.0	U	9.85	11.4	J	ug/L		116	45 - 155
Phenanthrene	2.0	J	9.85	11.7		ug/L		99	41 - 117
Anthracene	0.25	U	9.85	10.1		ug/L		103	35 - 116
Di-n-butyl phthalate	0.54	U	9.85	10.3	J	ug/L		105	31 - 137
Fluoranthene	0.34	U	9.85	9.82	J	ug/L		100	14 - 145
Pyrene	0.54	U	9.85	9.37	J	ug/L		95	28 - 133
Butyl benzyl phthalate	0.59	U	9.85	11.0	J	ug/L		111	36 - 144
3,3'-Dichlorobenzidine	0.89	U	9.85	0.89	U F	ug/L		0	33 - 167
Benzo[a]anthracene	0.39	U	9.85	9.17	J	ug/L		93	24 - 126
Bis(2-ethylhexyl) phthalate	1.8	U	9.85	8.52	J	ug/L		86	14 - 123
Chrysene	0.39	U	9.85	9.71		ug/L		99	23 - 128
Di-n-octyl phthalate	0.79	U	9.85	7.98	J	ug/L		81	30 - 170
Benzo[b]fluoranthene	0.34	U	9.85	8.09	J	ug/L		82	31 - 119
Benzo[k]fluoranthene	0.44	U	9.85	7.77	J	ug/L		79	29 - 117
Benzo[a]pyrene	0.39	U	9.85	8.39		ug/L		85	60 - 140
Indeno[1,2,3-cd]pyrene	0.34	U	9.85	7.93	J	ug/L		80	60 - 140

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54909-3 MS

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dibenz(a,h)anthracene	0.39	U	9.85	8.07	J	ug/L		82	62 - 138
Benzo[g,h,i]perylene	0.39	U	9.85	7.75	J	ug/L		79	10 - 123

Surrogate	MS %Recovery	MS Qualifier	Limits
Phenol-d6	27		10 - 94
2,4,6-Tribromophenol	99		10 - 123
2-Fluorobiphenyl	92		43 - 116
2-Fluorophenol	39		10 - 100
Nitrobenzene-d5	85		35 - 114
Terphenyl-d14	82		33 - 141

Lab Sample ID: 600-54909-3 MSD

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aniline	0.39	U	9.85	3.88	J	ug/L		39	10 - 130	5	20
Phenol	1.2	J	9.85	3.42	J	ug/L		22	10 - 62	1	20
Bis(2-chloroethyl)ether	0.74	U	9.85	9.11		ug/L		93	20 - 107	1	20
2-Chlorophenol	0.64	U	9.85	8.24	J	ug/L		84	36 - 96	1	20
Benzyl alcohol	0.84	U	9.85	6.64	J	ug/L		67	17 - 111	13	20
Bis(2-chloroisopropyl) ether	2.0	U	9.85	9.48		ug/L		96	50 - 130	2	20
3 & 4 Methylphenol	0.99	U	9.85	6.47		ug/L		66	12 - 111	5	20
N-Nitrosodi-n-propylamine	0.49	U	9.85	10.4	J	ug/L		106	44 - 110	13	20
Hexachloroethane	0.49	U	9.85	10.5	F	ug/L		106	35 - 101	6	20
Nitrobenzene	0.54	U	9.85	14.5	F	ug/L		147	37 - 104	1	20
Isophorone	0.54	U	9.85	8.99		ug/L		91	45 - 109	1	20
2-Nitrophenol	1.1	U	9.85	10.5	F	ug/L		107	48 - 100	6	20
2,4-Dimethylphenol	1.5	U	9.85	9.95	J F	ug/L		101	25 - 85	3	20
Bis(2-chloroethoxy)methane	0.64	U	9.85	10.9	F	ug/L		110	42 - 101	6	20
2,4-Dichlorophenol	0.74	U	9.85	10.0	J	ug/L		102	40 - 106	10	20
4-Chloroaniline	1.0	U	9.85	7.83		ug/L		79	49 - 151	1	20
4-Chloro-3-methylphenol	0.84	U	9.85	10.3		ug/L		105	67 - 133	10	20
2-Methylnaphthalene	260		9.85	277	4	ug/L		142	36 - 111	13	20
Hexachlorocyclopentadiene	0.64	U	9.85	6.96	J	ug/L		71	10 - 109	3	20
2,4,6-Trichlorophenol	0.89	U	9.85	10.8	F	ug/L		109	62 - 107	5	20
2,4,5-Trichlorophenol	1.2	U	9.85	10.8		ug/L		109	45 - 116	13	20
2-Chloronaphthalene	0.39	U	9.85	9.76		ug/L		99	42 - 100	1	20
2-Nitroaniline	0.94	U	9.85	13.8	F	ug/L		140	30 - 130	11	20
Dimethyl phthalate	0.34	U	9.85	10.5	J	ug/L		107	51 - 120	7	20
Acenaphthylene	0.30	U	9.85	10.7		ug/L		109	38 - 115	2	20
2,6-Dinitrotoluene	0.39	U	9.85	10.3		ug/L		104	47 - 118	7	20
3-Nitroaniline	0.79	U	9.85	9.76	J	ug/L		99	30 - 130	5	20
Acenaphthene	2.3	J	9.85	11.7		ug/L		96	46 - 118	2	20
2,4-Dinitrophenol	1.9	U	9.85	40.9	F	ug/L		415	40 - 140	2	20
4-Nitrophenol	2.8	U	9.85	19.4	F	ug/L		197	10 - 100	20	20
Dibenzofuran	1.2	J	9.85	10.6		ug/L		96	46 - 110	0	20
2,4-Dinitrotoluene	0.64	U	9.85	12.0		ug/L		121	41 - 125	13	20
Diethyl phthalate	7.4	U	9.85	11.6	J	ug/L		117	60 - 140	4	20

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54909-3 MSD

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
4-Chlorophenyl phenyl ether	0.49	U	9.85	10.0		ug/L		102	41 - 116	3	20
Fluorene	4.2	J	9.85	14.0		ug/L		100	44 - 112	7	20
4-Nitroaniline	1.2	U	9.85	6.31	J F	ug/L		64	46 - 154	24	20
4,6-Dinitro-2-methylphenol	4.1	U	9.85	11.4	J	ug/L		116	28 - 128	16	20
4-Bromophenyl phenyl ether	0.49	U	9.85	10.4		ug/L		105	50 - 113	7	20
Hexachlorobenzene	0.54	U	9.85	10.5		ug/L		107	29 - 126	17	20
Pentachlorophenol	3.0	U	9.85	11.7	J	ug/L		118	45 - 155	2	20
Phenanthrene	2.0	J	9.85	11.6		ug/L		97	41 - 117	1	20
Anthracene	0.25	U	9.85	10.6		ug/L		107	35 - 116	4	20
Di-n-butyl phthalate	0.54	U	9.85	11.8	J	ug/L		120	31 - 137	13	20
Fluoranthene	0.34	U	9.85	10.4	J	ug/L		106	14 - 145	6	20
Pyrene	0.54	U	9.85	9.38	J	ug/L		95	28 - 133	0	20
Butyl benzyl phthalate	0.59	U	9.85	12.2		ug/L		124	36 - 144	11	20
3,3'-Dichlorobenzidine	0.89	U	9.85	0.89	U F	ug/L		0	33 - 167	NC	20
Benzo[a]anthracene	0.39	U	9.85	9.28	J	ug/L		94	24 - 126	1	20
Bis(2-ethylhexyl) phthalate	1.8	U	9.85	8.26	J	ug/L		84	14 - 123	3	20
Chrysene	0.39	U	9.85	9.96		ug/L		101	23 - 128	3	20
Di-n-octyl phthalate	0.79	U	9.85	8.82	J	ug/L		90	30 - 170	10	20
Benzo[b]fluoranthene	0.34	U	9.85	8.72	J	ug/L		89	31 - 119	7	20
Benzo[k]fluoranthene	0.44	U	9.85	8.56	J	ug/L		87	29 - 117	10	20
Benzo[a]pyrene	0.39	U	9.85	9.18		ug/L		93	60 - 140	9	20
Indeno[1,2,3-cd]pyrene	0.34	U	9.85	8.84	J	ug/L		90	60 - 140	11	20
Dibenz(a,h)anthracene	0.39	U	9.85	8.79	J	ug/L		89	62 - 138	8	20
Benzo[g,h,i]perylene	0.39	U	9.85	7.93	J	ug/L		80	10 - 123	2	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Phenol-d6	14		10 - 94
2,4,6-Tribromophenol	100		10 - 123
2-Fluorobiphenyl	95		43 - 116
2-Fluorophenol	39		10 - 100
Nitrobenzene-d5	97		35 - 114
Terphenyl-d14	84		33 - 141

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aniline	0.079	U	9.85	2.80		ug/L		28	10 - 130
Phenol	0.039	U	9.85	1.97		ug/L		20	10 - 62
Bis(2-chloroethyl)ether	0.15	U	9.85	6.28		ug/L		64	20 - 107
2-Chlorophenol	0.13	U	9.85	5.65		ug/L		57	36 - 96
Benzyl alcohol	0.17	U	9.85	4.35	J	ug/L		44	17 - 111
Bis(2-chloroisopropyl) ether	0.39	U	9.85	6.23		ug/L		63	50 - 130
3 & 4 Methylphenol	0.20	U	9.85	4.25		ug/L		43	12 - 111
N-Nitrosodi-n-propylamine	0.099	U	9.85	6.64		ug/L		67	44 - 110
Hexachloroethane	0.099	U	9.85	5.95		ug/L		60	35 - 101
Nitrobenzene	0.11	U	9.85	6.55		ug/L		67	37 - 104
Isophorone	0.11	U	9.85	6.39		ug/L		65	45 - 109

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Nitrophenol	0.22	U	9.85	6.99		ug/L		71	48 - 100
2,4-Dimethylphenol	0.31	U	9.85	5.97		ug/L		61	25 - 85
Bis(2-chloroethoxy)methane	0.13	U	9.85	6.70		ug/L		68	42 - 101
2,4-Dichlorophenol	0.15	U	9.85	6.96		ug/L		71	40 - 106
4-Chloroaniline	0.21	U	9.85	5.77		ug/L		59	49 - 151
4-Chloro-3-methylphenol	0.17	U	9.85	7.34		ug/L		75	67 - 133
2-Methylnaphthalene	0.069	U	9.85	6.72		ug/L		68	36 - 111
Hexachlorocyclopentadiene	0.13	U	9.85	5.61		ug/L		57	10 - 109
2,4,6-Trichlorophenol	0.18	U	9.85	7.96		ug/L		81	62 - 107
2,4,5-Trichlorophenol	0.25	U	9.85	8.36		ug/L		85	45 - 116
2-Chloronaphthalene	0.079	U	9.85	6.59		ug/L		67	42 - 100
2-Nitroaniline	0.19	U	9.85	7.95		ug/L		81	30 - 130
Dimethyl phthalate	0.069	U	9.85	7.94		ug/L		81	51 - 120
Acenaphthylene	0.059	U	9.85	7.39		ug/L		75	38 - 115
2,6-Dinitrotoluene	0.079	U	9.85	8.66		ug/L		88	47 - 118
3-Nitroaniline	0.16	U	9.85	7.42		ug/L		75	30 - 130
Acenaphthene	0.079	U	9.85	7.11		ug/L		72	46 - 118
2,4-Dinitrophenol	0.38	U	9.85	13.0		ug/L		132	40 - 140
4-Nitrophenol	0.55	U	9.85	3.12		ug/L		32	10 - 100
Dibenzofuran	0.079	U	9.85	7.42		ug/L		75	46 - 110
2,4-Dinitrotoluene	0.13	U	9.85	8.76		ug/L		89	41 - 125
Diethyl phthalate	1.5	U	9.85	8.50		ug/L		86	60 - 140
4-Chlorophenyl phenyl ether	0.099	U	9.85	7.87		ug/L		80	41 - 116
Fluorene	0.069	U	9.85	7.84		ug/L		80	44 - 112
4-Nitroaniline	0.25	U	9.85	7.04		ug/L		71	46 - 154
4,6-Dinitro-2-methylphenol	0.82	U	9.85	6.36		ug/L		65	28 - 128
4-Bromophenyl phenyl ether	0.099	U	9.85	8.06		ug/L		82	50 - 113
Hexachlorobenzene	0.11	U	9.85	7.58		ug/L		77	29 - 126
Pentachlorophenol	0.60	U	9.85	6.55		ug/L		66	45 - 155
Phenanthrene	0.059	U	9.85	8.11		ug/L		82	41 - 117
Anthracene	0.049	U	9.85	8.22		ug/L		83	35 - 116
Di-n-butyl phthalate	0.19	J	9.85	8.59		ug/L		85	31 - 137
Fluoranthene	0.069	U	9.85	8.48		ug/L		86	14 - 145
Pyrene	0.11	U	9.85	7.48		ug/L		76	28 - 133
Butyl benzyl phthalate	0.20	J B	9.85	8.58		ug/L		85	36 - 144
3,3'-Dichlorobenzidine	0.18	U	9.85	4.00	J	ug/L		41	33 - 167
Benzo[a]anthracene	0.079	U	9.85	7.98		ug/L		81	24 - 126
Bis(2-ethylhexyl) phthalate	0.36	U	9.85	7.28		ug/L		74	14 - 123
Chrysene	0.079	U	9.85	7.94		ug/L		81	23 - 128
Di-n-octyl phthalate	0.16	U	9.85	7.19		ug/L		73	30 - 170
Benzo[b]fluoranthene	0.069	U	9.85	8.48		ug/L		86	31 - 119
Benzo[k]fluoranthene	0.089	U	9.85	8.60		ug/L		87	29 - 117
Benzo[a]pyrene	0.079	U	9.85	8.12		ug/L		82	60 - 140
Indeno[1,2,3-cd]pyrene	0.069	U	9.85	7.81		ug/L		79	60 - 140
Dibenz(a,h)anthracene	0.079	U	9.85	7.29		ug/L		74	62 - 138
Benzo[g,h,i]perylene	0.079	U	9.85	7.57		ug/L		77	10 - 123

Surrogate	MS %Recovery	MS Qualifier	Limits
Phenol-d6	17		10 - 94

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79421

Surrogate	MS %Recovery	MS Qualifier	Limits
2,4,6-Tribromophenol	76		10 - 123
2-Fluorobiphenyl	61		43 - 116
2-Fluorophenol	27		10 - 100
Nitrobenzene-d5	61		35 - 114
Terphenyl-d14	69		33 - 141

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aniline	0.079	U	9.85	3.22		ug/L		33	10 - 130	14	20
Phenol	0.039	U	9.85	2.36		ug/L		24	10 - 62	18	20
Bis(2-chloroethyl)ether	0.15	U	9.85	7.02		ug/L		71	20 - 107	11	20
2-Chlorophenol	0.13	U	9.85	6.73		ug/L		68	36 - 96	17	20
Benzyl alcohol	0.17	U	9.85	4.82	J	ug/L		49	17 - 111	10	20
Bis(2-chloroisopropyl) ether	0.39	U	9.85	7.06		ug/L		72	50 - 130	12	20
3 & 4 Methylphenol	0.20	U	9.85	5.22		ug/L		53	12 - 111	20	20
N-Nitrosodi-n-propylamine	0.099	U	9.85	7.32		ug/L		74	44 - 110	10	20
Hexachloroethane	0.099	U	9.85	6.97		ug/L		71	35 - 101	16	20
Nitrobenzene	0.11	U	9.85	7.72		ug/L		78	37 - 104	16	20
Isophorone	0.11	U	9.85	7.30		ug/L		74	45 - 109	13	20
2-Nitrophenol	0.22	U	9.85	8.31		ug/L		84	48 - 100	17	20
2,4-Dimethylphenol	0.31	U	9.85	5.86		ug/L		59	25 - 85	2	20
Bis(2-chloroethoxy)methane	0.13	U	9.85	7.44		ug/L		75	42 - 101	10	20
2,4-Dichlorophenol	0.15	U	9.85	7.66		ug/L		78	40 - 106	10	20
4-Chloroaniline	0.21	U	9.85	5.73		ug/L		58	49 - 151	1	20
4-Chloro-3-methylphenol	0.17	U	9.85	8.16		ug/L		83	67 - 133	11	20
2-Methylnaphthalene	0.069	U	9.85	7.58		ug/L		77	36 - 111	12	20
Hexachlorocyclopentadiene	0.13	U	9.85	6.49		ug/L		66	10 - 109	14	20
2,4,6-Trichlorophenol	0.18	U	9.85	8.46		ug/L		86	62 - 107	6	20
2,4,5-Trichlorophenol	0.25	U	9.85	8.75		ug/L		89	45 - 116	5	20
2-Chloronaphthalene	0.079	U	9.85	7.52		ug/L		76	42 - 100	13	20
2-Nitroaniline	0.19	U	9.85	8.93		ug/L		91	30 - 130	12	20
Dimethyl phthalate	0.069	U	9.85	8.70		ug/L		88	51 - 120	9	20
Acenaphthylene	0.059	U	9.85	8.26		ug/L		84	38 - 115	11	20
2,6-Dinitrotoluene	0.079	U	9.85	9.43		ug/L		96	47 - 118	9	20
3-Nitroaniline	0.16	U	9.85	7.33		ug/L		74	30 - 130	1	20
Acenaphthene	0.079	U	9.85	7.81		ug/L		79	46 - 118	9	20
2,4-Dinitrophenol	0.38	U	9.85	15.3	F	ug/L		156	40 - 140	16	20
4-Nitrophenol	0.55	U	9.85	4.15	F	ug/L		42	10 - 100	28	20
Dibenzofuran	0.079	U	9.85	8.32		ug/L		84	46 - 110	11	20
2,4-Dinitrotoluene	0.13	U	9.85	9.29		ug/L		94	41 - 125	6	20
Diethyl phthalate	1.5	U	9.85	9.14		ug/L		93	60 - 140	7	20
4-Chlorophenyl phenyl ether	0.099	U	9.85	8.60		ug/L		87	41 - 116	9	20
Fluorene	0.069	U	9.85	8.66		ug/L		88	44 - 112	10	20
4-Nitroaniline	0.25	U	9.85	7.18		ug/L		73	46 - 154	2	20
4,6-Dinitro-2-methylphenol	0.82	U	9.85	7.69		ug/L		78	28 - 128	19	20
4-Bromophenyl phenyl ether	0.099	U	9.85	8.89		ug/L		90	50 - 113	10	20

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 8270C LL - Semivolatile Organic Compounds by GCMS - Low Levels (Continued)

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79705

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79421

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Hexachlorobenzene	0.11	U	9.85	8.27		ug/L		84	29 - 126	9	20
Pentachlorophenol	0.60	U	9.85	7.71		ug/L		78	45 - 155	16	20
Phenanthrene	0.059	U	9.85	8.68		ug/L		88	41 - 117	7	20
Anthracene	0.049	U	9.85	8.65		ug/L		88	35 - 116	5	20
Di-n-butyl phthalate	0.19	J	9.85	9.31		ug/L		93	31 - 137	8	20
Fluoranthene	0.069	U	9.85	8.86		ug/L		90	14 - 145	4	20
Pyrene	0.11	U	9.85	7.98		ug/L		81	28 - 133	6	20
Butyl benzyl phthalate	0.20	J B	9.85	9.35		ug/L		93	36 - 144	9	20
3,3'-Dichlorobenzidine	0.18	U	9.85	4.28	J	ug/L		43	33 - 167	7	20
Benzo[a]anthracene	0.079	U	9.85	8.23		ug/L		84	24 - 126	3	20
Bis(2-ethylhexyl) phthalate	0.36	U	9.85	7.65		ug/L		78	14 - 123	5	20
Chrysene	0.079	U	9.85	9.00		ug/L		91	23 - 128	13	20
Di-n-octyl phthalate	0.16	U	9.85	7.40		ug/L		75	30 - 170	3	20
Benzo[b]fluoranthene	0.069	U	9.85	8.60		ug/L		87	31 - 119	1	20
Benzo[k]fluoranthene	0.089	U	9.85	9.61		ug/L		98	29 - 117	11	20
Benzo[a]pyrene	0.079	U	9.85	8.36		ug/L		85	60 - 140	3	20
Indeno[1,2,3-cd]pyrene	0.069	U	9.85	8.12		ug/L		82	60 - 140	4	20
Dibenz(a,h)anthracene	0.079	U	9.85	7.72		ug/L		78	62 - 138	6	20
Benzo[g,h,i]perylene	0.079	U	9.85	7.76		ug/L		79	10 - 123	3	20

Surrogate	MSD %Recovery	MSD Qualifier	Limits
Phenol-d6	20		10 - 94
2,4,6-Tribromophenol	82		10 - 123
2-Fluorobiphenyl	69		43 - 116
2-Fluorophenol	32		10 - 100
Nitrobenzene-d5	71		35 - 114
Terphenyl-d14	74		33 - 141

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC)

Lab Sample ID: MB 600-79551/1-A

Matrix: Water

Analysis Batch: 79655

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79551

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
C6-C12	0.83	U	2.0	0.83	mg/L		05/18/12 09:26	05/18/12 16:56	1
>C12-C28	0.96	U	2.0	0.96	mg/L		05/18/12 09:26	05/18/12 16:56	1
>C28-C35	0.96	U	2.0	0.96	mg/L		05/18/12 09:26	05/18/12 16:56	1
C6-C35	1.6	U	2.0	1.6	mg/L		05/18/12 09:26	05/18/12 16:56	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	94		70 - 130	05/18/12 09:26	05/18/12 16:56	1

Lab Sample ID: LCS 600-79551/2-A

Matrix: Water

Analysis Batch: 79655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79551

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	33.3	39.9		mg/L		120	75 - 125

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: LCS 600-79551/2-A

Matrix: Water

Analysis Batch: 79655

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79551

	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
>C12-C28	33.3	41.5		mg/L		124	75 - 125
C6-C35	66.7	81.3		mg/L		122	75 - 125
				</			

Lab Sample ID: 600-54909-3 MS

Matrix: Water

Analysis Batch: 79655

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79551

Sample Data: 1999									
Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
C6-C12	2.8		32.4	27.5		mg/L		76	75 - 125
>C12-C28	16		32.4	39.1	F	mg/L		70	75 - 125
C6-C35	20		64.7	66.6	F	mg/L		72	75 - 125
MS MS									
Surrogate	%Recovery	Qualifier	Limits						
o-Terphenyl	94		70 - 130						

Lab Sample ID: 600-54909-3 MSD

Matrix: Water

Analysis Batch: 79655

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79551

	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
C6-C12	2.8		33.0	37.9	F	mg/L		107	75 - 125	32	20
>C12-C28	16		33.0	49.5	F	mg/L		101	75 - 125	24	20
C6-C35	20		65.9	87.5	F	mg/L		103	75 - 125	27	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
o-Terphenyl	127		70 - 130								

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Batch: 79655

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79551

	Sample	Sample	Spike	MS	MS				%Rec.		
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits		
C6-C12	0.80	U	32.4	36.1		mg/L		111	75 - 125		
>C12-C28	0.93	U	32.4	38.0		mg/L		117	75 - 125		
C6-C35	1.5	U	64.7	74.0		mg/L		114	75 - 125		

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79655

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79551

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
C6-C12	0.80	U	32.4	37.5		mg/L		116	75 - 125	4	20
>C12-C28	0.93	U	32.4	37.1		mg/L		115	75 - 125	2	20

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: TX 1005 - Texas - Total Petroleum Hydrocarbon (GC) (Continued)

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79655

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79551

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C6-C35	1.5	U	64.8	74.7		mg/L		115	75 - 125	1	20
Surrogate	MSD %Recovery	MSD Qualifier	Limits								
<i>o</i> -Terphenyl	129		70 - 130								

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 600-79276/1-A

Matrix: Water

Analysis Batch: 79370

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79276

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0033	U	0.010	0.0033	mg/L		05/15/12 11:24	05/16/12 10:49	1
Aluminum	0.0266	J	0.50	0.022	mg/L		05/15/12 11:24	05/16/12 10:49	1
Barium	0.0022	U	0.020	0.0022	mg/L		05/15/12 11:24	05/16/12 10:49	1
Cobalt	0.00063	U	0.010	0.00063	mg/L		05/15/12 11:24	05/16/12 10:49	1
Chromium	0.0016	U	0.010	0.0016	mg/L		05/15/12 11:24	05/16/12 10:49	1
Copper	0.0015	U	0.010	0.0015	mg/L		05/15/12 11:24	05/16/12 10:49	1
Manganese	0.00084	U	0.010	0.00084	mg/L		05/15/12 11:24	05/16/12 10:49	1
Nickel	0.0018	U	0.010	0.0018	mg/L		05/15/12 11:24	05/16/12 10:49	1
Lead	0.0029	U	0.010	0.0029	mg/L		05/15/12 11:24	05/16/12 10:49	1
Selenium	0.0042	U	0.040	0.0042	mg/L		05/15/12 11:24	05/16/12 10:49	1
Thallium	0.0078	U	0.030	0.0078	mg/L		05/15/12 11:24	05/16/12 10:49	1
Vanadium	0.0017	U	0.010	0.0017	mg/L		05/15/12 11:24	05/16/12 10:49	1
Zinc	0.00420	J	0.030	0.0022	mg/L		05/15/12 11:24	05/16/12 10:49	1

Lab Sample ID: LCS 600-79276/2-A

Matrix: Water

Analysis Batch: 79370

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79276

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	1.00	1.03		mg/L		103	80 - 120
Aluminum	10.0	10.1		mg/L		101	80 - 120
Barium	1.00	1.03		mg/L		103	80 - 120
Cobalt	1.00	1.03		mg/L		103	80 - 120
Chromium	1.00	1.02		mg/L		102	80 - 120
Copper	1.00	1.02		mg/L		102	80 - 120
Manganese	1.00	1.02		mg/L		102	80 - 120
Nickel	1.00	1.01		mg/L		101	80 - 120
Lead	1.00	1.01		mg/L		101	80 - 120
Selenium	1.00	1.03		mg/L		103	80 - 120
Thallium	1.00	1.02		mg/L		102	80 - 120
Vanadium	1.00	1.02		mg/L		102	80 - 120
Zinc	1.00	1.01		mg/L		101	80 - 120

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-54909-3 MS

Matrix: Water

Analysis Batch: 79370

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79276

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.19		1.00	1.24		mg/L		105	75 - 125
Aluminum	0.034	J B	10.0	10.2		mg/L		102	75 - 125
Barium	0.45		1.00	1.44		mg/L		99	75 - 125
Cobalt	0.0041	J	1.00	1.06		mg/L		106	75 - 125
Chromium	0.0016	U	1.00	0.990		mg/L		99	75 - 125
Copper	0.0057	J	1.00	1.01		mg/L		100	75 - 125
Manganese	0.49		1.00	1.44		mg/L		95	75 - 125
Nickel	0.0045	J	1.00	1.04		mg/L		104	75 - 125
Lead	0.0044	J	1.00	1.03		mg/L		103	75 - 125
Selenium	0.0042	U	1.00	1.05		mg/L		105	75 - 125
Thallium	0.0078	U	1.00	1.02		mg/L		102	75 - 125
Vanadium	0.0017	U	1.00	1.01		mg/L		101	75 - 125
Zinc	0.074	B	1.00	1.09		mg/L		102	75 - 125

Lab Sample ID: 600-54909-3 MSD

Matrix: Water

Analysis Batch: 79370

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79276

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Arsenic	0.19		1.00	1.23		mg/L		104	75 - 125	1	20
Aluminum	0.034	J B	10.0	10.2		mg/L		102	75 - 125	0	20
Barium	0.45		1.00	1.44		mg/L		99	75 - 125	0	20
Cobalt	0.0041	J	1.00	1.05		mg/L		105	75 - 125	1	20
Chromium	0.0016	U	1.00	0.983		mg/L		98	75 - 125	1	20
Copper	0.0057	J	1.00	1.01		mg/L		100	75 - 125	0	20
Manganese	0.49		1.00	1.44		mg/L		95	75 - 125	0	20
Nickel	0.0045	J	1.00	1.03		mg/L		102	75 - 125	1	20
Lead	0.0044	J	1.00	1.02		mg/L		102	75 - 125	1	20
Selenium	0.0042	U	1.00	1.04		mg/L		104	75 - 125	0	20
Thallium	0.0078	U	1.00	1.01		mg/L		101	75 - 125	1	20
Vanadium	0.0017	U	1.00	1.00		mg/L		100	75 - 125	0	20
Zinc	0.074	B	1.00	1.08		mg/L		101	75 - 125	1	20

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Batch: 79370

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79276

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.0043	J	1.00	1.07		mg/L		107	75 - 125
Aluminum	0.084	J B	10.0	10.4		mg/L		103	75 - 125
Barium	0.14		1.00	1.17		mg/L		103	75 - 125
Cobalt	0.00063	U	1.00	1.08		mg/L		108	75 - 125
Chromium	0.0016	U	1.00	1.01		mg/L		101	75 - 125
Copper	0.0049	J	1.00	1.01		mg/L		101	75 - 125
Manganese	0.019		1.00	1.04		mg/L		102	75 - 125
Nickel	0.0018	U	1.00	1.06		mg/L		106	75 - 125
Lead	0.0029	U	1.00	1.05		mg/L		105	75 - 125
Selenium	0.0042	U	1.00	1.07		mg/L		107	75 - 125
Thallium	0.0078	U	1.00	1.04		mg/L		104	75 - 125
Vanadium	0.0017	U	1.00	1.02		mg/L		102	75 - 125

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Batch: 79370

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79276

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.012	J B	1.00	1.08		mg/L		107	75 - 125

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79370

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79276

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	0.0043	J	1.00	1.03		mg/L		103	75 - 125	4	20
Aluminum	0.084	J B	10.0	10.3		mg/L		102	75 - 125	1	20
Barium	0.14		1.00	1.14		mg/L		100	75 - 125	2	20
Cobalt	0.00063	U	1.00	1.04		mg/L		104	75 - 125	4	20
Chromium	0.0016	U	1.00	0.993		mg/L		99	75 - 125	1	20
Copper	0.0049	J	1.00	0.998		mg/L		99	75 - 125	1	20
Manganese	0.019		1.00	1.02		mg/L		100	75 - 125	2	20
Nickel	0.0018	U	1.00	1.02		mg/L		102	75 - 125	4	20
Lead	0.0029	U	1.00	1.01		mg/L		101	75 - 125	4	20
Selenium	0.0042	U	1.00	1.03		mg/L		103	75 - 125	4	20
Thallium	0.0078	U	1.00	1.01		mg/L		101	75 - 125	4	20
Vanadium	0.0017	U	1.00	1.01		mg/L		101	75 - 125	1	20
Zinc	0.012	J B	1.00	1.04		mg/L		103	75 - 125	3	20

Lab Sample ID: 600-54909-3 DU

Matrix: Water

Analysis Batch: 79370

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79276

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.19		0.191		mg/L		2	20
Aluminum	0.034	J B	0.0703	J	mg/L		70	20
Barium	0.45		0.457		mg/L		2	20
Cobalt	0.0041	J	0.00410	J	mg/L		0	20
Chromium	0.0016	U	0.0016	U	mg/L		NC	20
Copper	0.0057	J	0.0015	U	mg/L		NC	20
Manganese	0.49		0.487		mg/L		0.6	20
Nickel	0.0045	J	0.00430	J	mg/L		5	20
Lead	0.0044	J	0.00450	J	mg/L		2	20
Selenium	0.0042	U	0.0042	U	mg/L		NC	20
Thallium	0.0078	U	0.0078	U	mg/L		NC	20
Vanadium	0.0017	U	0.0017	U	mg/L		NC	20
Zinc	0.074	B	0.0723		mg/L		2	20

Lab Sample ID: 600-54909-8 DU

Matrix: Water

Analysis Batch: 79370

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79276

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	0.0043	J	0.00410	J	mg/L		5	20
Aluminum	0.084	J B	0.0702	J	mg/L		18	20
Barium	0.14		0.138		mg/L		3	20
Cobalt	0.00063	U	0.00063	U	mg/L		NC	20
Chromium	0.0016	U	0.0016	U	mg/L		NC	20

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 600-54909-8 DU

Matrix: Water

Analysis Batch: 79370

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79276

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Copper	0.0049	J	0.00240	J	mg/L		68	20
Manganese	0.019		0.0193		mg/L		0	20
Nickel	0.0018	U	0.0018	U	mg/L		NC	20
Lead	0.0029	U	0.0029	U	mg/L		NC	20
Selenium	0.0042	U	0.0042	U	mg/L		NC	20
Thallium	0.0078	U	0.0078	U	mg/L		NC	20
Vanadium	0.0017	U	0.0017	U	mg/L		NC	20
Zinc	0.012	J B	0.00540	J	mg/L		79	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 600-79339/7-A

Matrix: Water

Analysis Batch: 79402

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 79339

Analyte	MB Result	MB Qualifier	MQL (Adj)	SDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.000026	U	0.00020	0.000026	mg/L		05/16/12 07:31	05/16/12 12:46	1

Lab Sample ID: LCS 600-79339/8-A

Matrix: Water

Analysis Batch: 79402

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 79339

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00300	0.00306		mg/L		102	70 - 130

Lab Sample ID: 600-54909-3 MS

Matrix: Water

Analysis Batch: 79402

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79339

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000026	U	0.00300	0.00122	F	mg/L		41	75 - 125

Lab Sample ID: 600-54909-3 MSD

Matrix: Water

Analysis Batch: 79402

Client Sample ID: MW-5

Prep Type: Total/NA

Prep Batch: 79339

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Mercury	0.000026	U	0.00300	0.00118	F	mg/L		39	75 - 125	3	20

Lab Sample ID: 600-54909-8 MS

Matrix: Water

Analysis Batch: 79402

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79339

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.000026	U	0.00300	0.00244		mg/L		81	75 - 125

QC Sample Results

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: 600-54909-8 MSD

Matrix: Water

Analysis Batch: 79402

Client Sample ID: MW-7

Prep Type: Total/NA

Prep Batch: 79339

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.000026	U	0.00300	0.00240		mg/L		80	75 - 125	2	20

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

GC/MS VOA

Analysis Batch: 79279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-3 - DL	MW-5	Total/NA	Water	8260B	
600-54909-3 MS - DL	MW-5	Total/NA	Water	8260B	
600-54909-3 MSD - DL	MW-5	Total/NA	Water	8260B	
600-54909-4	MW-11	Total/NA	Water	8260B	
600-54909-5	MW-10	Total/NA	Water	8260B	
600-54909-6	MW-8	Total/NA	Water	8260B	
600-54909-7	DUP-2	Total/NA	Water	8260B	
LCS 600-79279/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79279/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79300

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	8260B	
600-54909-2	DUP-1	Total/NA	Water	8260B	
600-54909-3	MW-5	Total/NA	Water	8260B	
600-54909-3 MS	MW-5	Total/NA	Water	8260B	
600-54909-3 MSD	MW-5	Total/NA	Water	8260B	
LCS 600-79300/5	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79300/7	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79383

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-10	TRIP BLANK	Total/NA	Water	8260B	
LCS 600-79383/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79383/4	Method Blank	Total/NA	Water	8260B	

Analysis Batch: 79394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-8	MW-7	Total/NA	Water	8260B	
600-54909-8 MS	MW-7	Total/NA	Water	8260B	
600-54909-8 MSD	MW-7	Total/NA	Water	8260B	
600-54909-9	MW-6	Total/NA	Water	8260B	
600-54909-9 - DL	MW-6	Total/NA	Water	8260B	
LCS 600-79394/3	Lab Control Sample	Total/NA	Water	8260B	
MB 600-79394/4	Method Blank	Total/NA	Water	8260B	

GC/MS Semi VOA

Prep Batch: 79421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	3510C	
600-54909-2	DUP-1	Total/NA	Water	3510C	
600-54909-3	MW-5	Total/NA	Water	3510C	
600-54909-3 MS	MW-5	Total/NA	Water	3510C	
600-54909-3 MSD	MW-5	Total/NA	Water	3510C	
600-54909-4	MW-11	Total/NA	Water	3510C	
600-54909-5	MW-10	Total/NA	Water	3510C	
600-54909-6	MW-8	Total/NA	Water	3510C	
600-54909-7	DUP-2	Total/NA	Water	3510C	
600-54909-8	MW-7	Total/NA	Water	3510C	
600-54909-8 MS	MW-7	Total/NA	Water	3510C	
600-54909-8 MSD	MW-7	Total/NA	Water	3510C	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

GC/MS Semi VOA (Continued)

Prep Batch: 79421 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-9	MW-6	Total/NA	Water	3510C	
600-54909-9 - DL	MW-6	Total/NA	Water	3510C	
LCS 600-79421/2-A	Lab Control Sample	Total/NA	Water	3510C	
MB 600-79421/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 79549

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 600-79421/2-A	Lab Control Sample	Total/NA	Water	8270C LL	79421
MB 600-79421/1-A	Method Blank	Total/NA	Water	8270C LL	79421

Analysis Batch: 79705

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	8270C LL	79421
600-54909-2	DUP-1	Total/NA	Water	8270C LL	79421
600-54909-3	MW-5	Total/NA	Water	8270C LL	79421
600-54909-3 MS	MW-5	Total/NA	Water	8270C LL	79421
600-54909-3 MSD	MW-5	Total/NA	Water	8270C LL	79421
600-54909-4	MW-11	Total/NA	Water	8270C LL	79421
600-54909-5	MW-10	Total/NA	Water	8270C LL	79421
600-54909-6	MW-8	Total/NA	Water	8270C LL	79421
600-54909-7	DUP-2	Total/NA	Water	8270C LL	79421
600-54909-8	MW-7	Total/NA	Water	8270C LL	79421
600-54909-8 MS	MW-7	Total/NA	Water	8270C LL	79421
600-54909-8 MSD	MW-7	Total/NA	Water	8270C LL	79421
600-54909-9	MW-6	Total/NA	Water	8270C LL	79421

Analysis Batch: 79750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-9 - DL	MW-6	Total/NA	Water	8270C LL	79421

GC Semi VOA

Prep Batch: 79551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-2	DUP-1	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-3	MW-5	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-3 MS	MW-5	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-3 MSD	MW-5	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-4	MW-11	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-5	MW-10	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-6	MW-8	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-7	DUP-2	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-8	MW-7	Total/NA	Water	TX_1005_W_Pr ep	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

GC Semi VOA (Continued)

Prep Batch: 79551 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-8 MS	MW-7	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-8 MSD	MW-7	Total/NA	Water	TX_1005_W_Pr ep	
600-54909-9	MW-6	Total/NA	Water	TX_1005_W_Pr ep	
LCS 600-79551/2-A	Lab Control Sample	Total/NA	Water	TX_1005_W_Pr ep	
MB 600-79551/1-A	Method Blank	Total/NA	Water	TX_1005_W_Pr ep	

Analysis Batch: 79655

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	TX 1005	79551
600-54909-2	DUP-1	Total/NA	Water	TX 1005	79551
600-54909-3	MW-5	Total/NA	Water	TX 1005	79551
600-54909-3 MS	MW-5	Total/NA	Water	TX 1005	79551
600-54909-3 MSD	MW-5	Total/NA	Water	TX 1005	79551
600-54909-4	MW-11	Total/NA	Water	TX 1005	79551
600-54909-5	MW-10	Total/NA	Water	TX 1005	79551
600-54909-6	MW-8	Total/NA	Water	TX 1005	79551
600-54909-7	DUP-2	Total/NA	Water	TX 1005	79551
600-54909-8	MW-7	Total/NA	Water	TX 1005	79551
600-54909-8 MS	MW-7	Total/NA	Water	TX 1005	79551
600-54909-8 MSD	MW-7	Total/NA	Water	TX 1005	79551
600-54909-9	MW-6	Total/NA	Water	TX 1005	79551
LCS 600-79551/2-A	Lab Control Sample	Total/NA	Water	TX 1005	79551
MB 600-79551/1-A	Method Blank	Total/NA	Water	TX 1005	79551

Metals

Prep Batch: 79276

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	3010A	
600-54909-2	DUP-1	Total/NA	Water	3010A	
600-54909-3	MW-5	Total/NA	Water	3010A	
600-54909-3 DU	MW-5	Total/NA	Water	3010A	
600-54909-3 MS	MW-5	Total/NA	Water	3010A	
600-54909-3 MSD	MW-5	Total/NA	Water	3010A	
600-54909-4	MW-11	Total/NA	Water	3010A	
600-54909-5	MW-10	Total/NA	Water	3010A	
600-54909-6	MW-8	Total/NA	Water	3010A	
600-54909-7	DUP-2	Total/NA	Water	3010A	
600-54909-8	MW-7	Total/NA	Water	3010A	
600-54909-8 DU	MW-7	Total/NA	Water	3010A	
600-54909-8 MS	MW-7	Total/NA	Water	3010A	
600-54909-8 MSD	MW-7	Total/NA	Water	3010A	
600-54909-9	MW-6	Total/NA	Water	3010A	
LCS 600-79276/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 600-79276/1-A	Method Blank	Total/NA	Water	3010A	

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Metals (Continued)

Prep Batch: 79339

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	7470A	
600-54909-2	DUP-1	Total/NA	Water	7470A	
600-54909-3	MW-5	Total/NA	Water	7470A	
600-54909-3 MS	MW-5	Total/NA	Water	7470A	
600-54909-3 MSD	MW-5	Total/NA	Water	7470A	
600-54909-4	MW-11	Total/NA	Water	7470A	
600-54909-5	MW-10	Total/NA	Water	7470A	
600-54909-6	MW-8	Total/NA	Water	7470A	
600-54909-7	DUP-2	Total/NA	Water	7470A	
600-54909-8	MW-7	Total/NA	Water	7470A	
600-54909-8 MS	MW-7	Total/NA	Water	7470A	
600-54909-8 MSD	MW-7	Total/NA	Water	7470A	
600-54909-9	MW-6	Total/NA	Water	7470A	
LCS 600-79339/8-A	Lab Control Sample	Total/NA	Water	7470A	
MB 600-79339/7-A	Method Blank	Total/NA	Water	7470A	

Analysis Batch: 79370

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	6010B	79276
600-54909-2	DUP-1	Total/NA	Water	6010B	79276
600-54909-3	MW-5	Total/NA	Water	6010B	79276
600-54909-3 DU	MW-5	Total/NA	Water	6010B	79276
600-54909-3 MS	MW-5	Total/NA	Water	6010B	79276
600-54909-3 MSD	MW-5	Total/NA	Water	6010B	79276
600-54909-4	MW-11	Total/NA	Water	6010B	79276
600-54909-5	MW-10	Total/NA	Water	6010B	79276
600-54909-6	MW-8	Total/NA	Water	6010B	79276
600-54909-7	DUP-2	Total/NA	Water	6010B	79276
600-54909-8	MW-7	Total/NA	Water	6010B	79276
600-54909-8 DU	MW-7	Total/NA	Water	6010B	79276
600-54909-8 MS	MW-7	Total/NA	Water	6010B	79276
600-54909-8 MSD	MW-7	Total/NA	Water	6010B	79276
600-54909-9	MW-6	Total/NA	Water	6010B	79276
LCS 600-79276/2-A	Lab Control Sample	Total/NA	Water	6010B	79276
MB 600-79276/1-A	Method Blank	Total/NA	Water	6010B	79276

Analysis Batch: 79402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
600-54909-1	MW-1	Total/NA	Water	7470A	79339
600-54909-2	DUP-1	Total/NA	Water	7470A	79339
600-54909-3	MW-5	Total/NA	Water	7470A	79339
600-54909-3 MS	MW-5	Total/NA	Water	7470A	79339
600-54909-3 MSD	MW-5	Total/NA	Water	7470A	79339
600-54909-4	MW-11	Total/NA	Water	7470A	79339
600-54909-5	MW-10	Total/NA	Water	7470A	79339
600-54909-6	MW-8	Total/NA	Water	7470A	79339
600-54909-7	DUP-2	Total/NA	Water	7470A	79339
600-54909-8	MW-7	Total/NA	Water	7470A	79339
600-54909-8 MS	MW-7	Total/NA	Water	7470A	79339
600-54909-8 MSD	MW-7	Total/NA	Water	7470A	79339
600-54909-9	MW-6	Total/NA	Water	7470A	79339
LCS 600-79339/8-A	Lab Control Sample	Total/NA	Water	7470A	79339

QC Association Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Metals (Continued)

Analysis Batch: 79402 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 600-79339/7-A	Method Blank	Total/NA	Water	7470A	79339

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-1

Date Collected: 05/11/12 07:15

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79300	05/15/12 20:47	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 10:40	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 18:06	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 10:56	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 12:52	SRP	TAL HOU

Client Sample ID: DUP-1

Date Collected: 05/11/12 07:15

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-2

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79300	05/15/12 21:16	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 11:06	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 18:41	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 10:58	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 12:54	SRP	TAL HOU

Client Sample ID: MW-5

Date Collected: 05/11/12 08:15

Date Received: 05/12/12 09:42

Lab Sample ID: 600-54909-3

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B	DL	50	79279	05/15/12 04:23	DT	TAL HOU
Total/NA	Analysis	8260B		5	79300	05/15/12 15:05	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		5	79705	05/18/12 11:32	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 19:16	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:01	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 12:56	SRP	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: MW-11

Lab Sample ID: 600-54909-4

Date Collected: 05/11/12 09:20

Matrix: Water

Date Received: 05/12/12 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 02:58	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 12:52	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 20:59	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:10	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:01	SRP	TAL HOU

Client Sample ID: MW-10

Lab Sample ID: 600-54909-5

Date Collected: 05/11/12 10:30

Matrix: Water

Date Received: 05/12/12 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 06:17	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 13:18	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 21:34	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:19	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:03	SRP	TAL HOU

Client Sample ID: MW-8

Lab Sample ID: 600-54909-6

Date Collected: 05/11/12 11:30

Matrix: Water

Date Received: 05/12/12 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 06:45	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 13:45	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 22:09	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:22	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:09	SRP	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: DUP-2

Lab Sample ID: 600-54909-7

Date Collected: 05/11/12 11:30

Matrix: Water

Date Received: 05/12/12 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79279	05/15/12 05:48	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 14:11	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 23:19	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:24	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:11	SRP	TAL HOU

Client Sample ID: MW-7

Lab Sample ID: 600-54909-8

Date Collected: 05/11/12 12:30

Matrix: Water

Date Received: 05/12/12 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79394	05/16/12 14:21	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		1	79705	05/18/12 09:22	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/18/12 23:55	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:27	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:13	SRP	TAL HOU

Client Sample ID: MW-6

Lab Sample ID: 600-54909-9

Date Collected: 05/11/12 13:30

Matrix: Water

Date Received: 05/12/12 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		50	79394	05/16/12 18:38	DT	TAL HOU
Total/NA	Analysis	8260B	DL	1000	79394	05/16/12 19:07	DT	TAL HOU
Total/NA	Prep	3510C			79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL		5	79705	05/18/12 14:37	JH	TAL HOU
Total/NA	Prep	3510C	DL		79421	05/16/12 15:10	SMB	TAL HOU
Total/NA	Analysis	8270C LL	DL	50	79750	05/21/12 13:06	JH	TAL HOU
Total/NA	Prep	TX_1005_W_Prep			79551	05/18/12 09:26	NV	TAL HOU
Total/NA	Analysis	TX 1005		1	79655	05/19/12 01:39	RV	TAL HOU
Total/NA	Prep	3010A			79276	05/15/12 11:24	NER	TAL HOU
Total/NA	Analysis	6010B		1	79370	05/16/12 11:36	DCL	TAL HOU
Total/NA	Prep	7470A			79339	05/16/12 07:31	SRP	TAL HOU
Total/NA	Analysis	7470A		1	79402	05/16/12 13:18	SRP	TAL HOU

Lab Chronicle

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Client Sample ID: TRIP BLANK Lab Sample ID: 600-54909-10
Date Collected: 05/11/12 00:00 Matrix: Water
Date Received: 05/12/12 09:42

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		1	79383	05/16/12 01:23	DT	TAL HOU

Laboratory References:
TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Certification Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Houston	Arkansas DEQ	State Program	6	88-0759
TestAmerica Houston	Oklahoma	State Program	6	9503
TestAmerica Houston	Texas	NELAC	6	T104704223-10-6-TX
TestAmerica Houston	USDA	Federal		P330-08-00217
TestAmerica Houston	Utah	NELAC	8	GULF

Accreditation may not be offered or required for all methods and analytes reported in this package . Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL HOU
8270C LL	Semivolatile Organic Compounds by GCMS - Low Levels	SW846	TAL HOU
TX 1005	Texas - Total Petroleum Hydrocarbon (GC)	TCEQ	TAL HOU
6010B	Metals (ICP)	SW846	TAL HOU
7470A	Mercury (CVAA)	SW846	TAL HOU

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TCEQ = Texas Commission of Environmental Quality

Laboratory References:

TAL HOU = TestAmerica Houston, 6310 Rothway Street, Houston, TX 77040, TEL (713)690-4444

Sample Summary

Client: Pastor, Behling & Wheeler LLC
Project/Site: R&H Oil

TestAmerica Job ID: 600-54909-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
600-54909-1	MW-1	Water	05/11/12 07:15	05/12/12 09:42
600-54909-2	DUP-1	Water	05/11/12 07:15	05/12/12 09:42
600-54909-3	MW-5	Water	05/11/12 08:15	05/12/12 09:42
600-54909-4	MW-11	Water	05/11/12 09:20	05/12/12 09:42
600-54909-5	MW-10	Water	05/11/12 10:30	05/12/12 09:42
600-54909-6	MW-8	Water	05/11/12 11:30	05/12/12 09:42
600-54909-7	DUP-2	Water	05/11/12 11:30	05/12/12 09:42
600-54909-8	MW-7	Water	05/11/12 12:30	05/12/12 09:42
600-54909-9	MW-6	Water	05/11/12 13:30	05/12/12 09:42
600-54909-10	TRIP BLANK	Water	05/11/12 00:00	05/12/12 09:42

TestAmerica

Custody Seal Intact:	Custody Seal No.:
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Login Sample Receipt Checklist

Client: Pastor, Behling & Wheeler LLC

Job Number: 600-54909-1

Login Number: 54909

List Source: TestAmerica Houston

List Number: 1

Creator: Trenery, Michael J

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	4.1 3.8 6.0
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

ATTACHMENT 8
EPA LAB DATA REPORTS
(Only on compact disc)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Laboratory

Environmental Services Branch
10625 Fallstone Road, Houston, TX 77099
Phone: (281)983-2100 Fax: (281)983-2248

Final Analytical Report

Site Name -----R & H Oil / Tropicana

Sample Collection Date(s)-- 05/08/12 - 05/09/12

Contact----- Chris Villarreal (6SF-RA)

Report Date----- 07/30/12

Project #----- 12SF105

Work Order(s)----- 1205004

Analyses included in this report:

Air TO-15(SIM/Scan) dual units

Report Narrative

The "B" flag for trichloroethene in samples 1205004-05 and 1205004-07 are required because the concentrations found in these samples were less than ten times the concentration found in the associated analysis blank.

The "J" flag for acetone in sample 1205004-02 is required because its concentration, 21.7 ppbv, exceeded the upper calibration limit of 20.0 ppbv. This is a small amount over the limit and no bias is expected.

Two samples, 1205004-02 and 1205004-03, had so much interference that substantial dilutions had to be made in order to analyze them.

Two samples, 1205004-01 and 1205004-05, arrived in the lab with so little sample, as indicated by their initial pressures, that a dilution had to be performed before analysis.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

Reporting limits are adjusted for sample size and matrix interference.

Report Approvals:

Richard McMillin
Region 6 Laboratory Manager

David Neleigh
Region 6 Laboratory Branch Chief



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Environmental Services Branch Laboratory

10625 Fallstone Road
Houston, Texas 77099

Sample Receipt and Disposal

Site Name: R & H Oil / Tropicana

Project Number: 12SF105

Data Management Coordinator: Christy Warren

Data Management Coordinator Signature

Date

Date Transmitted: ____/____/____

Please have the U.S. EPA Project Manager/Officer call the Data Management Coordinator at 3-2137 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Christy Warren
Data Management Coordinator
Region 6 Laboratory
6MD-HS

Received by and Date

Comments:

The laboratory routinely disposes of samples 90 days after all analyses have been completed. If you have a need to hold these samples in custody longer than 90 days, please sign below.

Signature

Date

Please provide a reason for holding:



Environmental Protection Agency
Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
SG-14	1205004-01	air	5/8/12 17:16	05/14/12 09:15
SG-19	1205004-02	air	5/9/12 18:43	05/14/12 09:15
SG-19-D	1205004-03	air	5/9/12 18:43	05/14/12 09:15
SG-21	1205004-04	air	5/8/12 14:29	05/14/12 09:15
SG-22	1205004-05	air	5/8/12 15:29	05/14/12 09:15
SS-2	1205004-06	air	5/8/12 16:19	05/14/12 09:15
TB-1-Air	1205004-07	air	5/8/12 18:00	05/14/12 09:15



Environmental Protection Agency
Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-01

Station ID: SG-14

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 1.9 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	3.63		90.8	70-130	05/14/12	05/27/12

Targets

Analyte (CAS Number)	Result ppbv	Result µg/m ³	Analyte Qualifiers	Reporting Limit ppbv	Reporting Limit µg/m ³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		12,500	29,800	5000	05/14/12	05/27/12
Acrolein (107-02-8)	U	U		2,500	5,740	"	"	"
Benzene (71-43-2)	136,000	435,000		2,500	8,000	50000	"	"
Benzyl chloride (100-44-7)	U	U		2,500	13,000	5000	"	"
1,3-Butadiene (106-99-0)	U	U		1,250	2,770	"	"	"
2-Butanone (78-93-3)	U	U		5,000	14,800	"	"	"
Bromodichloromethane (75-27-4)	U	U		1,250	8,390	"	"	"
Bromoform (75-25-2)	U	U		1,250	12,900	"	"	"
Bromomethane (74-83-9)	U	U		1,250	4,860	"	"	"
Carbon disulfide (75-15-0)	U	U		1,250	3,900	"	"	"
Carbon tetrachloride (56-23-5)	U	U		1,250	7,880	"	"	"
Chlorobenzene (108-90-7)	U	U		1,250	5,770	"	"	"
Chlorodibromomethane (124-48-1)	U	U		1,250	10,700	"	"	"
Chloroethane (75-00-3)	U	U		1,250	3,310	"	"	"
Chloroform (67-66-3)	U	U		250	1,220	"	"	"
Chloromethane (74-87-3)	U	U		1,250	2,590	"	"	"
Cyclohexane (110-82-7)	562,000	1.94E6		12,500	43,100	50000	"	"
1,2-Dibromoethane (106-93-4)	U	U		1,250	9,630	5000	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		1,250	7,530	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		1,250	7,530	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		1,250	7,530	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		1,250	6,190	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		1,250	5,070	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		1,250	5,070	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		1,250	4,970	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		1,250	4,970	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		1,250	4,970	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		1,250	5,790	"	"	"



Environmental Protection Agency
Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-01

Station ID: SG-14

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 1.9 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		1,250	5,680	5000	05/14/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		1,250	5,680	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		1,250	8,760	"	"	"
1,4-Dioxane (123-91-1)	U	U		5,000	18,100	"	"	"
Ethyl acetate (141-78-6)	U	U		2,500	9,030	"	"	"
Ethyl alcohol (64-17-5)	U	U		5,000	9,440	"	"	"
Ethylbenzene (100-41-4)	U	U		1,250	5,430	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		1,250	6,150	"	"	"
n-Heptane (142-82-5)	2,550	10,500		1,250	5,130	"	"	05/27/12
Hexachlorobutadiene (87-68-3)	U	U		1,250	13,400	"	"	05/27/12
n-Hexane (110-54-3)	35,200	124,000		1,250	4,410	"	"	05/27/12
2-Hexanone (591-78-6)	U	U		2,500	10,300	"	"	05/27/12
Isopropyl alcohol (67-63-0)	U	U		25,000	61,600	"	"	"
Methylene chloride (75-09-2)	U	U		1,250	4,350	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		2,500	10,300	"	"	"
Methyl methacrylate (80-62-6)	U	U		1,250	5,130	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		1,250	4,510	"	"	"
Propene (115-07-1)	19,700	34,000		1,250	2,160	"	"	05/27/12
Styrene (100-42-5)	U	U		1,250	5,340	"	"	05/27/12
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		1,250	8,600	"	"	"
Tetrachloroethene (127-18-4)	U	U		250	1,700	"	"	"
Tetrahydrofuran (109-99-9)	U	U		1,250	3,690	"	"	"
Toluene (108-88-3)	U	U		1,250	4,720	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		1,250	9,300	"	"	05/27/12
1,1,1-Trichloroethane (71-55-6)	U	U		1,250	6,840	"	"	05/27/12
1,1,2-Trichloroethane (79-00-5)	U	U		1,250	6,840	"	"	"
Trichloroethene (79-01-6)	U	U		250	1,350	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		1,250	7,040	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		1,250	9,600	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	4,000	19,700		1,250	6,160	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		1,250	6,160	"	"	"



Environmental Protection Agency
Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-01

Station ID: SG-14

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 1.9 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		2,500	8,820	5000	05/14/12	05/27/12
Vinyl chloride (75-01-4)	U	U		250	640	"	"	"
meta-/para-Xylene (na)	3,350	14,600		1,250	5,440	"	"	05/27/12
ortho-Xylene (95-47-6)	U	U		1,250	5,430	"	"	05/27/12

F.



Environmental Protection Agency
Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02

Station ID: SG-19

Batch: B2E1504

Date Collected: 05/09/12

Initial Pressure: 11.5 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	3.96		99.0	70-130	05/15/12	05/26/12

Targets

Analyte (CAS Number)	Result ppbv	Result µg/m³	Analyte Qualifiers	Reporting Limit ppbv	Reporting Limit µg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	29.6	70.3	J	3.41	8.11	1.362398	05/15/12	05/26/12
Acrolein (107-02-8)	U	U		0.68	1.57	"	"	"
Benzene (71-43-2)	3.41	10.9		0.07	0.22	"	"	"
Benzyl chloride (100-44-7)	U	U		0.68	3.53	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.34	0.76	"	"	"
2-Butanone (78-93-3)	5.18	15.3		1.36	4.02	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.34	2.29	"	"	"
Bromoform (75-25-2)	U	U		0.34	3.53	"	"	"
Bromomethane (74-83-9)	U	U		0.34	1.33	"	"	"
Carbon disulfide (75-15-0)	U	U		2.50	7.80	10	"	05/26/12
Carbon tetrachloride (56-23-5)	U	U		0.34	2.15	1.362398	"	05/26/12
Chlorobenzene (108-90-7)	U	U		2.50	11.5	10	"	05/26/12
Chlorodibromomethane (124-48-1)	U	U		0.34	2.91	1.362398	"	05/26/12
Chloroethane (75-00-3)	U	U		0.34	0.90	"	"	"
Chloroform (67-66-3)	U	U		0.07	0.33	"	"	"
Chloromethane (74-87-3)	U	U		0.34	0.70	"	"	"
Cyclohexane (110-82-7)	8.72	30.1		0.34	1.18	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.34	2.62	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.34	2.05	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.34	2.05	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.34	2.05	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.34	1.69	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.34	1.38	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.34	1.38	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.34	1.35	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.34	1.35	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.34	1.35	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.34	1.58	"	"	"



Environmental Protection Agency
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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02

Station ID: SG-19

Batch: B2E1504

Date Collected: 05/09/12

Initial Pressure: 11.5 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.34	1.55	1.362398	05/15/12	05/26/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.34	1.55	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.34	2.39	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.36	4.92	"	"	"
Ethyl acetate (141-78-6)	U	U		0.68	2.46	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.36	2.57	"	"	"
Ethylbenzene (100-41-4)	U	U		0.34	1.48	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.34	1.68	"	"	"
n-Heptane (142-82-5)	U	U		0.34	1.40	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.34	3.64	"	"	"
n-Hexane (110-54-3)	0.48	1.68		0.34	1.20	"	"	"
2-Hexanone (591-78-6)	U	U		0.68	2.80	"	"	"
Isopropyl alcohol (67-63-0)	6,950	17,100		2,500	6,160	500	"	05/27/12
Methylene chloride (75-09-2)	U	U		2.50	8.70	10	"	05/26/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.68	2.79	1.362398	"	05/26/12
Methyl methacrylate (80-62-6)	U	U		0.34	1.40	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.34	1.23	"	"	"
Propene (115-07-1)	0.86	1.48		0.34	0.59	"	"	"
Styrene (100-42-5)	U	U		0.34	1.45	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.34	2.34	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.07	0.46	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.34	1.01	"	"	"
Toluene (108-88-3)	0.86	3.24		0.34	1.29	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.34	2.53	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.34	1.86	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.34	1.86	"	"	"
Trichloroethene (79-01-6)	U	U		0.07	0.37	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.34	1.92	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.34	2.62	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.59	2.89		0.34	1.68	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.34	1.68	"	"	"
Vinyl acetate (108-05-4)	U	U		0.68	2.40	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02

Station ID: SG-19

Batch: B2E1504

Date Collected: 05/09/12

Initial Pressure: 11.5 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl chloride (75-01-4)	U	U		0.07	0.17	1.362398	05/15/12	05/26/12
meta-/para-Xylene (na)	0.68	2.96		0.34	1.48	"	"	"
ortho-Xylene (95-47-6)	U	U		0.34	1.48	"	"	"

F.



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03

Station ID: SG-19-D

Batch: B2E1504

Date Collected: 05/09/12

Initial Pressure: 11.5 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	4.11		103	70-130	05/15/12	05/26/12

Targets

Analyte (CAS Number)	Result ppbv	Result µg/m³	Analyte Qualifiers	Reporting Limit ppbv	Reporting Limit µg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	47.4	113		25.0	59.5	10	05/15/12	05/26/12
Acrolein (107-02-8)	U	U		0.65	1.50	1.302083	"	05/26/12
Benzene (71-43-2)	0.59	1.88		0.07	0.21	"	"	"
Benzyl chloride (100-44-7)	U	U		0.65	3.38	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.33	0.72	"	"	"
2-Butanone (78-93-3)	8.53	25.2		1.30	3.85	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.33	2.19	"	"	"
Bromoform (75-25-2)	U	U		0.33	3.37	"	"	"
Bromomethane (74-83-9)	U	U		0.33	1.27	"	"	"
Carbon disulfide (75-15-0)	U	U		0.33	1.02	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.33	2.05	"	"	"
Chlorobenzene (108-90-7)	U	U		2.50	11.5	10	"	05/26/12
Chlorodibromomethane (124-48-1)	U	U		0.33	2.78	1.302083	"	05/26/12
Chloroethane (75-00-3)	U	U		0.33	0.86	"	"	"
Chloroform (67-66-3)	U	U		0.07	0.32	"	"	"
Chloromethane (74-87-3)	U	U		0.33	0.67	"	"	"
Cyclohexane (110-82-7)	3.32	11.5		0.33	1.12	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.33	2.51	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.33	1.96	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.33	1.96	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.33	1.96	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.33	1.61	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.33	1.32	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.33	1.32	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.33	1.29	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.33	1.29	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.33	1.29	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		125	579	500	"	05/27/12



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03

Station ID: SG-19-D

Batch: B2E1504
Sample Type: air

Date Collected: 05/09/12

Initial Pressure: 11.5 psia
Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.33	1.48	1.302083	05/15/12	05/26/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.33	1.48	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.33	2.28	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.30	4.70	"	"	"
Ethyl acetate (141-78-6)	U	U		0.65	2.35	"	"	"
Ethyl alcohol (64-17-5)	U	U		500	944	500	"	05/27/12
Ethylbenzene (100-41-4)	U	U		0.33	1.42	1.302083	"	05/26/12
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.33	1.60	"	"	"
n-Heptane (142-82-5)	U	U		0.33	1.34	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.33	3.48	"	"	"
n-Hexane (110-54-3)	0.74	2.62		0.33	1.15	"	"	"
2-Hexanone (591-78-6)	U	U		0.65	2.67	"	"	"
Isopropyl alcohol (67-63-0)	7,220	17,800		2,500	6,160	500	"	05/27/12
Methylene chloride (75-09-2)	U	U		2.50	8.70	10	"	05/26/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.65	2.67	1.302083	"	05/26/12
Methyl methacrylate (80-62-6)	U	U		0.33	1.34	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.33	1.18	"	"	"
Propene (115-07-1)	U	U		0.33	0.56	"	"	"
Styrene (100-42-5)	U	U		0.33	1.39	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.33	2.24	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.07	0.44	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.33	0.96	"	"	"
Toluene (108-88-3)	0.95	3.59		0.33	1.23	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.33	2.42	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.33	1.78	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.33	1.78	"	"	"
Trichloroethene (79-01-6)	U	U		0.07	0.35	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.33	1.83	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.33	2.50	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.48	2.37		0.33	1.60	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.33	1.60	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03

Station ID: SG-19-D

Batch: B2E1504

Date Collected: 05/09/12

Initial Pressure: 11.5 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		0.65	2.30	1.302083	05/15/12	05/26/12
Vinyl chloride (75-01-4)	0.10	0.27		0.07	0.17	"	"	"
meta-/para-Xylene (na)	0.62	2.72		0.33	1.42	"	"	"
ortho-Xylene (95-47-6)	U	U		0.33	1.42	"	"	"

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04

Station ID: SG-21

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.4 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	4.13		103	70-130	05/15/12	05/27/12

Targets

Analyte (CAS Number)	Result ppbv	Result µg/m³	Analyte Qualifiers	Reporting Limit ppbv	Reporting Limit µg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		25.0	59.5	10	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		5.00	11.5	"	"	"
Benzene (71-43-2)	18.9	60.5		0.50	1.60	"	"	"
Benzyl chloride (100-44-7)	U	U		5.00	25.9	"	"	"
1,3-Butadiene (106-99-0)	U	U		2.50	5.54	"	"	"
2-Butanone (78-93-3)	U	U		10.0	29.5	"	"	"
Bromodichloromethane (75-27-4)	U	U		2.50	16.8	"	"	"
Bromoform (75-25-2)	U	U		2.50	25.9	"	"	"
Bromomethane (74-83-9)	U	U		2.50	9.73	"	"	"
Carbon disulfide (75-15-0)	5.60	17.5		2.50	7.80	"	"	"
Carbon tetrachloride (56-23-5)	U	U		2.50	15.8	"	"	"
Chlorobenzene (108-90-7)	U	U		2.50	11.5	"	"	"
Chlorodibromomethane (124-48-1)	U	U		2.50	21.3	"	"	"
Chloroethane (75-00-3)	U	U		2.50	6.61	"	"	"
Chloroform (67-66-3)	U	U		0.50	2.45	"	"	"
Chloromethane (74-87-3)	U	U		2.50	5.17	"	"	"
Cyclohexane (110-82-7)	54.9	189		2.50	8.63	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		2.50	19.3	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		2.50	15.1	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		2.50	15.1	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		2.50	15.1	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		2.50	12.4	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		2.50	10.1	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		2.50	10.1	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		2.50	9.93	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		2.50	9.93	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		2.50	9.93	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		2.50	11.6	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04

Station ID: SG-21

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.4 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		2.50	11.4	10	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		2.50	11.4	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		2.50	17.5	"	"	"
1,4-Dioxane (123-91-1)	U	U		10.0	36.1	"	"	"
Ethyl acetate (141-78-6)	U	U		5.00	18.1	"	"	"
Ethyl alcohol (64-17-5)	U	U		10.0	18.9	"	"	"
Ethylbenzene (100-41-4)	9.80	42.6		2.50	10.9	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		2.50	12.3	"	"	"
n-Heptane (142-82-5)	U	U		2.50	10.3	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		2.50	26.7	"	"	"
n-Hexane (110-54-3)	U	U		2.50	8.82	"	"	"
2-Hexanone (591-78-6)	U	U		5.00	20.5	"	"	"
Isopropyl alcohol (67-63-0)	135	333		50.0	123	"	"	"
Methylene chloride (75-09-2)	U	U		2.50	8.70	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		5.00	20.5	"	"	"
Methyl methacrylate (80-62-6)	U	U		2.50	10.3	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		2.50	9.03	"	"	"
Propene (115-07-1)	9.20	15.9		2.50	4.31	"	"	"
Styrene (100-42-5)	U	U		2.50	10.7	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		2.50	17.2	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.50	3.40	"	"	"
Tetrahydrofuran (109-99-9)	U	U		2.50	7.38	"	"	"
Toluene (108-88-3)	5.40	20.4		2.50	9.44	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		2.50	18.6	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		2.50	13.7	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		2.50	13.7	"	"	"
Trichloroethene (79-01-6)	U	U		0.50	2.69	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		2.50	14.1	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		2.50	19.2	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		2.50	12.3	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		2.50	12.3	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04

Station ID: SG-21

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.4 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		5.00	17.6	10	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.50	1.28	"	"	"
meta-/para-Xylene (na)	2.80	12.2		2.50	10.9	"	"	"
ortho-Xylene (95-47-6)	U	U		2.50	10.9	"	"	"

F.



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05

Station ID: SG-22

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 8.5 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	3.61		90.2	70-130	05/14/12	05/27/12

Targets

Analyte (CAS Number)	Result ppbv µg/m³		Analyte Qualifiers	Reporting Limit ppbv µg/m³		Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		2.50	5.95	1	05/14/12	05/27/12
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"
Benzene (71-43-2)	0.06	0.19		0.05	0.16	"	"	"
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"
2-Butanone (78-93-3)	U	U		1.00	2.95	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"
Chloroform (67-66-3)	U	U		0.05	0.24	"	"	"
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.25	1.51	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.25	1.51	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"



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Region 6 Laboratory

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05

Station ID: SG-22

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 8.5 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.25	1.14	1	05/14/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.25	1.14	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.25	1.75	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	U	U		5.00	12.3	"	"	"
Methylene chloride (75-09-2)	U	U		0.25	0.87	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	U	U		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	0.06	0.32	B	0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05

Station ID: SG-22

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 8.5 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/14/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	U	U		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06

Station ID: SS-2

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.8 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	3.73		93.2	70-130	05/15/12	05/27/12

Targets

Analyte (CAS Number)	Result ppbv	Result µg/m³	Analyte Qualifiers	Reporting Limit ppbv	Reporting Limit µg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	3.11	7.40		2.50	5.95	1	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"
Benzene (71-43-2)	0.10	0.32		0.05	0.16	"	"	"
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"
2-Butanone (78-93-3)	4.17	12.3		1.00	2.95	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"
Chloroform (67-66-3)	U	U		0.05	0.24	"	"	"
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"
1,3-Dichlorobenzene (541-73-1)	0.48	2.89		0.25	1.51	"	"	"
1,4-Dichlorobenzene (106-46-7)	0.29	1.75		0.25	1.51	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06

Station ID: SS-2

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.8 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.25	1.14	1	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.25	1.14	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.25	1.75	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	65.3	161		25.0	61.6	5	"	05/27/12
Methylene chloride (75-09-2)	U	U		0.25	0.87	1	"	05/27/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	0.07	0.48		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	0.41	1.55		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	U	U		0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.42	2.07		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06

Station ID: SS-2

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.8 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	0.39	1.70		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07

Station ID: TB-1-Air

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 12.9 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	3.62		90.5	70-130	05/15/12	05/27/12

Targets

Analyte (CAS Number)	Result ppbv µg/m³		Analyte Qualifiers	Reporting Limit ppbv µg/m³		Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		2.50	5.95	1	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"
Benzene (71-43-2)	0.10	0.32		0.05	0.16	"	"	"
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"
2-Butanone (78-93-3)	U	U		1.00	2.95	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"
Chloroform (67-66-3)	0.09	0.44		0.05	0.24	"	"	"
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.25	1.51	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.25	1.51	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07

Station ID: TB-1-Air

Batch: B2E1504
Sample Type: air

Date Collected: 05/08/12

Initial Pressure: 12.9 psia
Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.25	1.14	1	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.25	1.14	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.25	1.75	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	U	U		5.00	12.3	"	"	"
Methylene chloride (75-09-2)	U	U		0.25	0.87	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	0.06	0.41		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	U	U		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	0.12	0.65	B	0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07

Station ID: TB-1-Air

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 12.9 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	U	U		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"

F.



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC Limits
Surr: 4-Bromofluorobenzene	3.73		4.00	93.2 70-130

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Acetone	U	1.25
Acrolein	U	0.25
Benzene	U	0.02
Benzyl chloride	U	0.25
1,3-Butadiene	U	0.12
2-Butanone	U	0.50
Bromodichloromethane	U	0.12
Bromoform	U	0.12
Bromomethane	U	0.12
Carbon disulfide	U	0.12
Carbon tetrachloride	U	0.12
Chlorobenzene	U	0.12
Chlorodibromomethane	U	0.12
Chloroethane	U	0.12
Chloroform	U	0.02
Chloromethane	U	0.12
Cyclohexane	U	0.12
1,2-Dibromoethane	U	0.12
1,2-Dichlorobenzene	U	0.12
1,3-Dichlorobenzene	U	0.12
1,4-Dichlorobenzene	U	0.12



Environmental Protection Agency
Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Dichlorodifluoromethane	U	0.12
1,1-Dichloroethane	U	0.12
1,2-Dichloroethane	U	0.12
1,1-Dichloroethene	U	0.12
cis-1,2-Dichloroethene	U	0.12
trans-1,2-Dichloroethene	U	0.12
1,2-Dichloropropane	U	0.12
cis-1,3-Dichloropropene	U	0.12
trans-1,3-Dichloropropene	U	0.12
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U	0.12
1,4-Dioxane	U	0.50
Ethyl acetate	U	0.25
Ethyl alcohol	U	0.50
Ethylbenzene	U	0.12
1-Ethyl-4-methylbenzene	U	0.12
n-Heptane	U	0.12
Hexachlorobutadiene	U	0.12
n-Hexane	U	0.12
2-Hexanone	U	0.25
Isopropyl alcohol	U	2.50
Methylene chloride	U	0.12
4-Methyl-2-pentanone	U	0.25
Methyl methacrylate	U	0.12
Methyl tertiary-butyl ether	U	0.12
Propene	U	0.12
Styrene	U	0.12
1,1,2,2-Tetrachloroethane	U	0.12
Tetrachloroethene	U	0.02



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Tetrahydrofuran	U	0.12
Toluene	U	0.12
1,2,4-Trichlorobenzene	U	0.25
1,1,1-Trichloroethane	U	0.12
1,1,2-Trichloroethane	U	0.12
Trichloroethene	0.02	0.02
Trichlorofluoromethane	U	0.12
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.12
1,2,4-Trimethylbenzene	U	0.12
1,3,5-Trimethylbenzene	U	0.12
Vinyl acetate	U	0.25
Vinyl chloride	U	0.02
meta-/para-Xylene	U	0.12
ortho-Xylene	U	0.12

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC Limits
Surr: 4-Bromofluorobenzene	4.09		4.00	102 70-130

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	%REC Limits
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Environmental Protection Agency
Region 6 Laboratory

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	%REC %REC Limits
Acetone	4.89		5.00	97.8 70-130
Benzene	4.46		5.00	89.2 70-130
1,3-Butadiene	4.48		5.00	89.6 70-130
2-Butanone	4.47		5.00	89.4 70-130
Bromodichloromethane	4.69		5.00	93.8 70-130
Bromoform	3.95		5.00	79.0 70-130
Bromomethane	4.50		5.00	90.0 70-130
Carbon disulfide	5.31		5.00	106 70-130
Carbon tetrachloride	4.36		5.00	87.2 70-130
Chlorobenzene	4.42		5.00	88.4 70-130
Chloroethane	4.65		5.00	93.0 70-130
Chloroform	4.38		5.00	87.6 70-130
Chloromethane	4.62		5.00	92.4 70-130
Cyclohexane	4.73		5.00	94.6 70-130
1,2-Dibromoethane	4.72		5.00	94.4 70-130
Dichlorodifluoromethane	4.31		5.00	86.2 70-130
1,1-Dichloroethane	4.53		5.00	90.6 70-130
1,2-Dichloroethane	4.29		5.00	85.8 70-130
1,1-Dichloroethene	5.03		5.00	101 70-130
cis-1,2-Dichloroethene	4.37		5.00	87.4 70-130
trans-1,2-Dichloroethene	4.93		5.00	98.6 70-130
1,2-Dichloropropane	4.42		5.00	88.4 70-130
cis-1,3-Dichloropropene	4.86		5.00	97.2 70-130
trans-1,3-Dichloropropene	4.68		5.00	93.6 70-130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	4.18		5.00	83.6 70-130
1,4-Dioxane	5.12		5.00	102 70-130
Ethyl alcohol	4.35		5.00	87.0 70-130
Ethylbenzene	4.44		5.00	88.8 70-130



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	%REC %REC Limits
n-Heptane	5.30		5.00	106 70-130
n-Hexane	4.77		5.00	95.4 70-130
2-Hexanone	4.53		5.00	90.6 70-130
Isopropyl alcohol	4.54		5.00	90.8 70-130
Methylene chloride	4.42		5.00	88.4 70-130
4-Methyl-2-pentanone	4.61		5.00	92.2 70-130
Methyl tertiary-butyl ether	5.07		5.00	101 70-130
Propene	4.68		5.00	93.6 70-130
Styrene	3.96		5.00	79.2 70-130
Tetrachloroethene	4.40		5.00	88.0 70-130
Tetrahydrofuran	5.16		5.00	103 70-130
Toluene	4.67		5.00	93.4 70-130
1,1,1-Trichloroethane	4.46		5.00	89.2 70-130
1,1,2-Trichloroethane	4.49		5.00	89.8 70-130
Trichloroethene	4.33		5.00	86.6 70-130
Trichlorofluoromethane	4.20		5.00	84.0 70-130
1,1,2-Trichloro-1,2,2-trifluoroethane	4.46		5.00	89.2 70-130
Vinyl chloride	4.61		5.00	92.2 70-130
meta-/para-Xylene	8.55		10.0	85.5 70-130
ortho-Xylene	4.10		5.00	82.0 70-130

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC %REC Limits
Surr: 4-Bromofluorobenzene	4.10		4.00	102 70-130



Environmental Protection Agency
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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets

ANALYTE	Result ppbv	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	%REC Limits	RPD RPD	RPD Limit
Acetone	5.23			5.00		105 70-130	6.72	25
Benzene	4.80			5.00		96.0 70-130	7.34	25
1,3-Butadiene	4.94			5.00		98.8 70-130	9.77	25
2-Butanone	4.80			5.00		96.0 70-130	7.12	25
Bromodichloromethane	5.01			5.00		100 70-130	6.60	25
Bromoform	4.08			5.00		81.6 70-130	3.24	25
Bromomethane	4.57			5.00		91.4 70-130	1.54	25
Carbon disulfide	5.46			5.00		109 70-130	2.79	25
Carbon tetrachloride	4.60			5.00		92.0 70-130	5.36	25
Chlorobenzene	4.49			5.00		89.8 70-130	1.57	25
Chloroethane	4.94			5.00		98.8 70-130	6.05	25
Chloroform	4.73			5.00		94.6 70-130	7.68	25
Chloromethane	4.97			5.00		99.4 70-130	7.30	25
Cyclohexane	4.84			5.00		96.8 70-130	2.30	25
1,2-Dibromoethane	4.79			5.00		95.8 70-130	1.47	25
Dichlorodifluoromethane	4.57			5.00		91.4 70-130	5.86	25
1,1-Dichloroethane	4.89			5.00		97.8 70-130	7.64	25
1,2-Dichloroethane	4.64			5.00		92.8 70-130	7.84	25
1,1-Dichloroethene	5.24			5.00		105 70-130	4.09	25
cis-1,2-Dichloroethene	4.78			5.00		95.6 70-130	8.96	25
trans-1,2-Dichloroethene	5.27			5.00		105 70-130	6.67	25
1,2-Dichloropropane	4.79			5.00		95.8 70-130	8.03	25
cis-1,3-Dichloropropene	5.05			5.00		101 70-130	3.83	25
trans-1,3-Dichloropropene	4.80			5.00		96.0 70-130	2.53	25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	4.36			5.00		87.2 70-130	4.22	25
1,4-Dioxane	5.29			5.00		106 70-130	3.27	25
Ethyl alcohol	4.12			5.00		82.4 70-130	5.43	25
Ethylbenzene	4.57			5.00		91.4 70-130	2.89	25



Environmental Protection Agency
Region 6 Laboratory

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	Source Result	%REC Limits	RPD RPD Limit
n-Heptane	5.08		5.00		102 70-130	4.24 25
n-Hexane	4.80		5.00		96.0 70-130	0.63 25
2-Hexanone	4.80		5.00		96.0 70-130	5.79 25
Isopropyl alcohol	5.77		5.00		115 70-130	23.9 25
Methylene chloride	4.70		5.00		94.0 70-130	6.14 25
4-Methyl-2-pentanone	4.72		5.00		94.4 70-130	2.36 25
Methyl tertiary-butyl ether	5.21		5.00		104 70-130	2.72 25
Propene	4.88		5.00		97.6 70-130	4.18 25
Styrene	4.04		5.00		80.8 70-130	2.00 25
Tetrachloroethene	4.66		5.00		93.2 70-130	5.74 25
Tetrahydrofuran	5.60		5.00		112 70-130	8.18 25
Toluene	4.72		5.00		94.4 70-130	1.06 25
1,1,1-Trichloroethane	4.74		5.00		94.8 70-130	6.09 25
1,1,2-Trichloroethane	4.90		5.00		98.0 70-130	8.73 25
Trichloroethene	4.56		5.00		91.2 70-130	5.17 25
Trichlorofluoromethane	4.65		5.00		93.0 70-130	10.2 25
1,1,2-Trichloro-1,2,2-trifluoroethane	4.74		5.00		94.8 70-130	6.09 25
Vinyl chloride	4.86		5.00		97.2 70-130	5.28 25
meta-/para-Xylene	8.85		10.0		88.5 70-130	3.45 25
ortho-Xylene	4.25		5.00		85.0 70-130	3.59 25

Duplicate (B2E1401-DUP1)

Source: 1205004-01

Prepared: 5/14/2012 Analyzed: 5/27/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC Limits
Surr: 4-Bromofluorobenzene	3.74		4.00	93.5 70-130



Environmental Protection Agency
Region 6 Laboratory

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01

Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets

ANALYTE	Result ppbv	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD RPD Limit
Acetone	U		12,500			25
Benzene	134,000		2,500		136,000	1.86 35
Benzyl chloride	U		2,500			35
1,3-Butadiene	U		1,250			35
2-Butanone	U		5,000			35
Bromodichloromethane	U		1,250			25
Bromoform	U		1,250			25
Bromomethane	U		1,250			35
Carbon disulfide	U		1,250			25
Carbon tetrachloride	U		1,250			35
Chlorobenzene	U		12,500			35
Chlorodibromomethane	U		1,250			25
Chloroethane	U		1,250			35
Chloroform	U		250			35
Chloromethane	U		1,250			35
Cyclohexane	531,000		12,500		562,000	5.58 25
1,2-Dibromoethane	U		1,250			35
1,2-Dichlorobenzene	U		1,250			35
1,3-Dichlorobenzene	U		1,250			35
1,4-Dichlorobenzene	U		1,250			35
Dichlorodifluoromethane	U		1,250			35
1,1-Dichloroethane	U		1,250			35
1,2-Dichloroethane	U		1,250			35
1,1-Dichloroethene	U		1,250			35
cis-1,2-Dichloroethene	U		1,250			35
trans-1,2-Dichloroethene	U		1,250			25
1,2-Dichloropropane	U		1,250			35
cis-1,3-Dichloropropene	U		1,250			35
trans-1,3-Dichloropropene	U		1,250			35



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01

Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD RPD	Limit
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U		1,250				35
1,4-Dioxane	U		5,000				25
Ethyl alcohol	U		5,000				25
Ethylbenzene	U		1,250				35
1-Ethyl-4-methylbenzene	U		1,250				35
n-Heptane	2,850		1,250		2,550	11.1	25
Hexachlorobutadiene	U		1,250				35
n-Hexane	38,200		1,250		35,200	8.16	35
2-Hexanone	U		2,500				25
Isopropyl alcohol	U		25,000				25
Methylene chloride	U		12,500				35
4-Methyl-2-pentanone	U		2,500				35
Methyl tertiary-butyl ether	U		1,250				35
Propene	21,400		1,250		19,700	8.04	25
Styrene	U		1,250				35
1,1,2,2-Tetrachloroethane	U		1,250				35
Tetrachloroethene	U		250				35
Tetrahydrofuran	U		1,250				25
Toluene	U		1,250				35
1,2,4-Trichlorobenzene	U		1,250				35
1,1,1-Trichloroethane	U		1,250				35
1,1,2-Trichloroethane	U		1,250				35
Trichloroethene	U		250				35
Trichlorofluoromethane	U		1,250				35
1,1,2-Trichloro-1,2,2-trifluoroethane	U		1,250				35
1,2,4-Trimethylbenzene	4,250		1,250		4,000	6.06	35
1,3,5-Trimethylbenzene	U		1,250				35



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01

Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD RPD	Limit
Vinyl chloride	U		250				35
meta-/para-Xylene	3,550		1,250		3,350	5.80	35
ortho-Xylene	U		1,250				35



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504

Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC Limits
Surr: 4-Bromofluorobenzene	3.68		4.00	92.0 70-130

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Acetone	U	1.25
Acrolein	U	0.25
Benzene	U	0.02
Benzyl chloride	U	0.25
1,3-Butadiene	U	0.12
2-Butanone	U	0.50
Bromodichloromethane	U	0.12
Bromoform	U	0.12
Bromomethane	U	0.12
Carbon disulfide	U	0.12
Carbon tetrachloride	U	0.12
Chlorobenzene	U	0.12
Chlorodibromomethane	U	0.12
Chloroethane	U	0.12
Chloroform	U	0.02
Chloromethane	U	0.12
Cyclohexane	U	0.12
1,2-Dibromoethane	U	0.12
1,2-Dichlorobenzene	U	0.12
1,3-Dichlorobenzene	U	0.12
1,4-Dichlorobenzene	U	0.12



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504

Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Dichlorodifluoromethane	U	0.12
1,1-Dichloroethane	U	0.12
1,2-Dichloroethane	U	0.12
1,1-Dichloroethene	U	0.12
cis-1,2-Dichloroethene	U	0.12
trans-1,2-Dichloroethene	U	0.12
1,2-Dichloropropane	U	0.12
cis-1,3-Dichloropropene	U	0.12
trans-1,3-Dichloropropene	U	0.12
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U	0.12
1,4-Dioxane	U	0.50
Ethyl acetate	U	0.25
Ethyl alcohol	U	0.50
Ethylbenzene	U	0.12
1-Ethyl-4-methylbenzene	U	0.12
n-Heptane	U	0.12
Hexachlorobutadiene	U	0.12
n-Hexane	U	0.12
2-Hexanone	U	0.25
Isopropyl alcohol	U	2.50
Methylene chloride	U	0.12
4-Methyl-2-pentanone	U	0.25
Methyl methacrylate	U	0.12
Methyl tertiary-butyl ether	U	0.12
Propene	U	0.12
Styrene	U	0.12
1,1,2,2-Tetrachloroethane	U	0.12
Tetrachloroethene	U	0.02



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504

Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets (Continued)

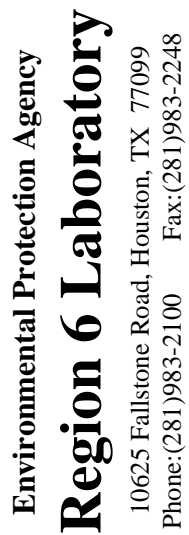
ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Tetrahydrofuran	U	0.12
Toluene	U	0.12
1,2,4-Trichlorobenzene	U	0.12
1,1,1-Trichloroethane	U	0.12
1,1,2-Trichloroethane	U	0.12
Trichloroethene	U	0.02
Trichlorofluoromethane	U	0.12
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.12
1,2,4-Trimethylbenzene	U	0.12
1,3,5-Trimethylbenzene	U	0.12
Vinyl acetate	U	0.25
Vinyl chloride	U	0.02
meta-/para-Xylene	U	0.12
ortho-Xylene	U	0.12

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AirbillNo: 7983 6108 1447

CHAIN OF CUSTODY RECORD

Site #: 06MB

No: 6-050912-234855-0004

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

[illegible]

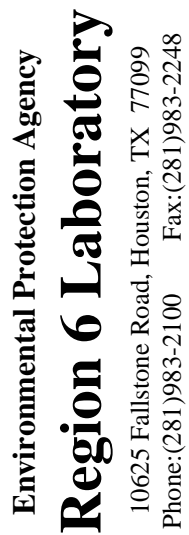
Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TO-15=TO-15

[illegible]

[illegible]



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Notes and Definitions

J	The identification of the analyte is acceptable; the reported value is an estimate.
B	Blank Related - The concentration found in the sample was less than 10X the concentration found in the associated extraction, digestion and/or analysis blank. Presence in the sample is therefore suspect.
A	This sample was extracted at a single acid pH.
HTS	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
AES	Atomic Emission Spectrometer
CVAA	Cold Vapor Atomic Absorption
ECD	Electron Capture Detector
GC	Gas Chromatograph
GFAA	Graphite Furnace Atomic Absorption
ICP	Inductively Coupled Plasma
MS	Mass Spectrometer
NA	Not Applicable
NPD	Nitrogen Phosphorous Detector
NR	Not Reported
TCLP	Toxicity Characteristic Leaching Procedure
U	Undetected
#	Out of QC limits

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.



Environmental Protection Agency
Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

July 18, 2012

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review
FROM: *Raymond Flores*
Raymond Flores, Alternate ESAT Regional Project Officer
Environmental Services Branch (6MD-HL)
TO: Chris Villarreal, Superfund Project Manager (6SF-RA)

Site: R&H OIL/TROPICANA
Case#: 42498
SDG#: MF5MP0

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: July 16, 2012
TO: Marvelyn Humphrey, ESAT PO, Region 6 EPA
FROM: Tseng-Ying Fan, Data Reviewer, ESAT *J*
THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT *067*
SUBJECT: CLP Data Review

Contract No.:	EP-W-06-030
TO No.:	030
Task/Sub-Task:	2-12
ESAT Doc. No.:	B030-212-0045
TDF No.:	6-12-369B
ESAT File No.:	I-0537

Attached is the data review summary for Case # 42498

SDG # MF5MP0

Site R & H Oil/Tropicana

COMMENTS:

I. LEVEL OF DATA REVIEW

Region 6 Standard Review was performed for this data package.

II. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

The CCS and hardcopy review found the data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

All results are acceptable.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO.	42498	SITE	R & H Oil/Tropicana
LABORATORY	A4	NO. OF SAMPLES	5
CONTRACT#	EP-W-09-035	MATRIX	Water
SDG#	MF5MP0	REVIEWER (IF NOT ESB)	ESAT
SOW#	ISM01.3	REVIEWER'S NAME	Tseng-Ying Fan
SF#	303DD2MB	COMPLETION DATE	July 16, 2012

SAMPLE NO.	MF5MP0	MF5MP4			
	MF5MP1				
	MF5MP2				
	MF5MP3				

DATA ASSESSMENT SUMMARY

	ICP	HG
1. HOLDING TIMES	<u>O</u>	<u>O</u>
2. CALIBRATIONS	<u>O</u>	<u>O</u>
3. BLANKS	<u>O</u>	<u>O</u>
4. MATRIX SPIKES	<u>O</u>	<u>O</u>
5. DUPLICATE ANALYSIS	<u>O</u>	<u>O</u>
6. ICP QC	<u>O</u>	
7. LCS	<u>O</u>	
8. SAMPLE VERIFICATION	<u>O</u>	<u>O</u>
9. OTHER QC	<u>N/A</u>	<u>N/A</u>
10. OVERALL ASSESSMENT	<u>O</u>	<u>O</u>

O = Data had no problems.

M = Data qualified due to major or minor problems.

Z = Data unacceptable.

NA = Not applicable.

ACTION ITEMS:

AREAS OF CONCERN:

**COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW**

CASE 42498 SDG MF5MP0 SITE R & H Oil/Tropicana LAB A4

COMMENTS: This SDG consisted of five water samples for total metals (by ICP-MS and ICP-AES) and mercury analyses following CLP SOW ISM01.3. The sampler designated sample MF5MP1 as the laboratory QC sample.

Region 6 Standard Review was performed for this package as requested by the TDF. The analytes of concern and the corresponding action levels are listed on page 14 of this report. Analytes of concern arsenic, cobalt, and/or manganese were reported at concentrations over the action levels in the samples. Samples MF5MP0, MF5MP1, and MF5MP4 were diluted 2X and reanalyzed because of high manganese concentrations. Sample MF5MP3 was diluted 5X and reanalyzed because of a high sodium concentration.

DATA ASSESSMENT: The QC problem affecting data usability is addressed below.

Because of laboratory blank readings, the antimony result <CRQL for sample MF5MP3 should be considered undetected and was flagged "U" at the CRQL on the DST.

OVERALL ASSESSMENT: All results are acceptable. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

The laboratory was contacted for three reporting issues (see Resubmission Request). The laboratory resubmission will not affect the DST, so the DST included in this report is the final version.

INORGANIC ACRONYMS

CADRE	Computer-Aided Data Review and Evaluation
CCB	Continuing Calibration Blank
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CN	Cyanide
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DST	Data Summary Table
HG	Mercury
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma-Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
ICS	Interference Check Sample
ICV	Initial Calibration Verification
IS	Internal Standard
LCS	Laboratory Control Sample
MDL	Method Detection Limit
NFG	National Functional Guidelines
PE	Performance Evaluation
%D	Percent Difference
%R	Percent Recovery
%RI	Percent Relative Intensity
%RSD	Percent Relative Standard Deviation
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RPD	Relative Percent Difference
RSCC	Regional Sample Control Center
SDG	Sample Delivery Group
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
TAL	Target Analyte List

INORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U** Not detected at reported quantitation limit.
- L** Reported concentration is between the MDL and the CRQL.
- J** Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, etc., or the result is below the CRQL.
- R** Result is unusable.
- F** A possibility of a false negative exists.
- UC** Reported concentration should be used as a raised quantitation limit because of blank effects and/or laboratory or field contamination.
- +** High biased. Actual concentration may be lower than the concentration reported.
- Low biased. Actual concentration may be higher than the concentration reported.
- W** The result should be used with caution. The result was reported on a dry weight basis although the sample did not conform to the EPA Office of Water definition of a soil sample because of its high water content (>70% moisture).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : MF5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	MF5MP0		
STATION LOCATION	MW-14		
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	22.3	
Arsenic	1.0	374	
Barium	10.0	443	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	120000	
Chromium	2.0	0.56	LJ
Cobalt	1.0	7.7	
Copper	2.0	0.64	LJ
Iron	100	13300	
Lead	1.0	8.8	
Magnesium	5000	14300	
Manganese	2.0	1130	
Mercury	0.20	0.044	LJ
Nickel	1.0	7.2	
Potassium	5000	1060	LJ
Selenium	5.0	17.4	
Silver	1.0	1.0	U
Sodium	5000	222000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	2.4	

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : MF5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	MF5MP1		
STATION LOCATION	MW-16		
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	2.0	U
Arsenic	1.0	176	
Barium	10.0	341	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	104000	
Chromium	2.0	0.50	LJ
Cobalt	1.0	1.2	
Copper	2.0	2.0	U
Iron	100	12500	
Lead	1.0	1.0	U
Magnesium	5000	11400	
Manganese	2.0	1140	
Mercury	0.20	0.054	LJ
Nickel	1.0	3.1	
Potassium	5000	1040	LJ
Selenium	5.0	9.4	
Silver	1.0	1.0	U
Sodium	5000	179000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	1.3	LJ

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : MF5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	MF5MP2		
STATION LOCATION	MW-17		
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	2.0	U
Arsenic	1.0	27.1	
Barium	10.0	114	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	119000	
Chromium	2.0	2.0	U
Cobalt	1.0	1.3	
Copper	2.0	2.0	U
Iron	100	1900	
Lead	1.0	0.27	LJ
Magnesium	5000	9090	
Manganese	1.0	496	
Mercury	0.20	0.10	LJ
Nickel	1.0	1.5	
Potassium	5000	1510	LJ
Selenium	5.0	1.2	LJ
Silver	1.0	1.0	U
Sodium	5000	65800	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	0.80	LJ

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : MF5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	MF5MP3		
STATION LOCATION	MW-18		
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	2.0	U
Arsenic	1.0	148	
Barium	10.0	381	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	90800	
Chromium	2.0	0.55	LJ
Cobalt	1.0	2.8	
Copper	2.0	1.4	LJ
Iron	100	7710	
Lead	1.0	5.0	
Magnesium	5000	20000	
Manganese	1.0	930	
Mercury	0.20	0.036	LJ
Nickel	1.0	5.1	
Potassium	5000	1200	LJ
Selenium	5.0	12.8	
Silver	1.0	1.0	U
Sodium	25000	908000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	1.5	LJ

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : MF5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L


EPA SAMPLE No.	MF5MP4		
STATION LOCATION	MW-14-D		
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	20.8	
Arsenic	1.0	377	
Barium	10.0	422	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	117000	
Chromium	2.0	0.52	LJ
Cobalt	1.0	7.8	
Copper	2.0	0.60	LJ
Iron	100	12700	
Lead	1.0	8.4	
Magnesium	5000	13900	
Manganese	2.0	1170	
Mercury	0.20	0.056	LJ
Nickel	1.0	7.4	
Potassium	5000	5000	U
Selenium	5.0	16.2	
Silver	1.0	1.0	U
Sodium	5000	217000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	2.7	

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. <u>42498</u>	SDG No. <u>MF5MP0</u>	SDG Nos. To Follow	Mod. Ref. No.	Date Rec <u>06/01/12</u>
EPA Lab ID: <u>A4</u>	ORIGINALS			YES NO N/A
Lab location: <u>The Woodlands, TX</u>	CUSTODY SEALS			
Region: <u>6</u> Audit No.: <u>42498/MF5MP0</u>	1. Present on package?			X
Resubmitted CSF? Yes _____ No <u>X</u>	2. Intact upon receipt?			X
Box No(s): <u>1</u>	FORM DC-2			
COMMENTS:	3. Numbering scheme accurate?			X
	4. Are enclosed documents listed?			X
	5. Are listed documents enclosed?			X
	FORM DC-1			
	6. Present?			X
	7. Complete?			X
	8. Accurate?			X
	TRAFFIC REPORT/CHAIN-OF-CUSTODY RECORD(s)			
	9. Signed?			X
	10. Dated?			X
	AIRBILLS/AIRBILL STICKER			
	11. Present?			X
	12. Signed?			X
	13. Dated?			X
	SAMPLE TAGS			
	14. Does DC-1 list tags as being included?			X
	15. Present?			X
	OTHER DOCUMENTS			
16. Complete?			X	
17. Legible?			X	
18. Original?			X	
18a. If "NO", does the copy indicate where original documents are located?				X
Over for additional comments.				

Audited 
 Audited _____
 Signature

Tseng-Ying Fan/ESAT Data Reviewer

 Printed Name/Title

Date 07/12/12
 Date _____

DC-2_

In Reference To Case No(s): 42498 SDG: MF5MP0 (I-0537)

**Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM**

Resubmission Request

Laboratory Name:	A4
Lab Contact:	Laxmi Teerupalli
Region:	6
Regional Contact:	Raymond Flores - EPA
ESAT Reviewer:	Tseng-Ying Fan - ESAT

In reference to data for the following fractions:

ICP-AES ICP-MS Mercury

Summary of Questions/Issues:

A. ICP-AES

Form 3s (pp. 36 & 37): The method code for all analytes should be "P". Please correct and resubmit these pages.

B. ICP-MS

The serial dilution results reported on the Form 8 on p. 49 were not corrected for the 5X dilution, causing the unnecessary "E"-flagging of the arsenic and barium results on this form and all Form 1s. The associated Form 13 (p. 68) also had an incorrect dilution factor for the serial dilution sample. Please correct and resubmit all affected forms.

C. Mercury

The ICB and many CCBs had negative mercury concentrations with absolute values greater than or equal to the MDL. However, instead of reporting the negative concentrations as required by the SOW (ISM01.3, p. B-27, sec. 3.4.4.2.8), the analyst reported non-detect results on the Form 3s. Please correct and resubmit the Form 3s (pp. 28 - 30).

NOTE: Any submitted laboratory resubmission should be clearly marked as "Additional Data" with a cover letter included describing what data is being delivered, which Case the data pertains, and who requested the data (ISM01.3, p. B-8, sec. 2.2.1). Custody seals are required for all such shipments. Please respond to the above item **within 6 business days (ISM01.3, p. B-8, sec. 2.2)** by e-mail to Flores.Raymond@epa.gov and by regular mail to:

Mr. Raymond Flores
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

USEPA CLP Inorganics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx

AirbillNo: 7983 6057 4464

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-050912-230237-0003

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	Sample Type
MF5MP0	Water/ Jose Flores	Grab	TM+HG(21)	6-474014 (HNO3 pH<2) (1)	MW-14	05/10/2012 09:05	F5MP0	Field Sample
MF5MP1	Water/ Jose Flores	Grab	TM+HG(21), TM+HG(21)	6-474026 (HNO3 pH<2), 6-474027 (HNO3 pH<2) (2)	MW-16	05/10/2012 07:35	F5MP1	Field Sample
MF5MP2	Water/ Jose Flores	Grab	TM+HG(21)	6-474038 (HNO3 pH<2) (1)	MW-17	05/10/2012 12:19	F5MP2	Field Sample
MF5MP3	Water/ Jose Flores	Grab	TM+HG(21)	6-474049 (HNO3 pH<2) (1)	MW-18	05/09/2012 17:37	F5MP3	Field Sample
MF5MP4	Water/ Jose Flores	Grab	TM+HG(21)	6-474015 (HNO3 pH<2) (1)	MW-14-D	05/10/2012 09:05		Field Duplicate

Sample(s) to be used for Lab QC: MF5MP1 - Special Instructions: Total metals+Hg by ISM01.3, ICP-AES+ICP-MS

ICP-MS for TM+Hg= Sb/As/Ba/Be/Cd/Cr/Co/Cu/Pb/Mn/Ni/Se/Ag/Ti/V/Zn

ICP-AES for TM= Al/Ca/Fe/Mg/K/Na

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TM+HG=TM + Hg-ISM01.3,ICP-MS+ICP-AES

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	<i>[Signature]</i>	5-10-12									

Page 13 of 14

R&H OIL/TROPICANA ENERGY SITE
GROUND WATER ANALYTE LIST – TOTAL METALS

TOTAL METALS			
Constituent	Extent Evaluation Comparison Value		
	mg/L	mg/L	µg/L
Aluminum	2.40E+01	24.00000	24000.00
Arsenic	1.00E-02	0.01000	10.00
Barium	2.00E+00	2.00000	2000.00
Chromium	1.00E-01	0.10000	100.00
Cobalt	7.30E-03	0.00730	7.30
Copper	1.30E+00	1.30000	1300.00
Lead	1.50E-02	0.01500	15.00
Manganese	1.10E+00	1.10000	1100.00
Mercury	6.80E-04	0.00068	0.68
Nickel	4.90E-01	0.49000	490.00
Selenium	5.00E-02	0.05000	50.00
Thallium	2.00E-03	0.00200	2.00
Vanadium	1.70E-03	0.00170	1.70
Zinc	7.30E+00	7.30000	7300.00



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

July 16, 2012

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review
FROM: *Raymond Flores*
Raymond Flores, Alternate ESAT Regional Project Officer
Environmental Services Branch (6MD-HL)
TO: Chris Villarreal, Superfund Project Manager (6SF-RA)

Site: R&H OIL/TROPICANA
Case#: 42498
SDG#: F5MP0

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: July 16, 2012
TO: Marvelyn Humphrey, ESAT PO, Region 6 EPA
FROM: Tseng-Ying Fan, Data Reviewer, ESAT *aj*
THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT *pgj*
SUBJECT: CLP Data Review

Contract No.: EP-W-06-030
TO No.: 030
Task/Sub-Task: 2-11
ESAT Doc. No.: B030-211-0025
TDF No.: 6-12-368B
ESAT File No.: 0-0882

Attached is the data review summary for Case # 42498
SDG # F5MP0
Site R & H Oil/Tropicana

COMMENTS:

I. LEVEL OF DATA REVIEW

Region 6 Standard Review was performed for this data package.

II. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

The CCS and hardcopy review found the data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

Some results were qualified because of technical problems, and the significant problems are listed below.

A. Seven TVOA and two TVOA-SIM samples had poor DMC performance.

B. Two reported TVOA analytes had questionable identification.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO.	42498	SITE	R & H Oil/Tropicana
LABORATORY	A4	NO. OF SAMPLES	17
CONTRACT#	EP-W-10-018	MATRIX	Water
SDG#	F5MP0	REVIEWER (IF NOT ESB)	ESAT
SOW#	SOM01.2/MA1359.6 & MA1859.1	REVIEWER'S NAME	Tseng-Ying Fan
SF#	303DD2MB	COMPLETION DATE	July 16, 2012

SAMPLE NO.	F5MP0	F5MP4	F5MP8	F5MQ4	F5MQ8
	F5MP1	F5MP5	F5MP9	F5MQ5	
	F5MP2	F5MP6	F5MQ0	F5MQ6	
	F5MP3	F5MP7	F5MQ1	F5MQ7	

DATA ASSESSMENT SUMMARY

	TVOA	TVOA SIM	BNA	BMA SIM
1. HOLDING TIMES	O	O	O	O
2. GC/MS TUNE/INSTR. PERFORM.	O	O	O	O
3. CALIBRATIONS	M	M	O	O
4. BLANKS	M	O	O	O
5. DMC/SURROGATES	M	M	O	O
6. MATRIX SPIKE/DUPLICATE/LCS	N/A	N/A	N/A	N/A
7. OTHER QC	N/A	N/A	N/A	N/A
8. INTERNAL STANDARDS	O	O	O	O
9. COMPOUND ID/QUANTITATION	M	O	O	O
10. PERFORMANCE/COMPLETENESS	O	O	O	O
11. OVERALL ASSESSMENT	M	M	O	O

O = Data had no problems.

M = Data qualified because of major or minor problems.

Z = Data unacceptable.

NA = Not applicable.

ACTION ITEMS:

AREA OF CONCERN: TVOA Vinyl chloride, bromomethane, and carbon tetrachloride failed the technical %D or minimum RRF calibration criteria. The concentrations exceeded the upper instrument calibration limit for three reported analytes. Laboratory/field contamination affected four results. Seven samples had outlying DMC recoveries. Two reported analytes had questionable identification.

TVOA-SIM The instrument had poor sensitivity for 1,2-dibromo-3-chloropropane. Samples F5MP9 and F5MQ8 had poor DMC performance.

**COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW**

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

COMMENTS: This SDG consisted of 17 water samples for organics analysis following CLP SOW SOM01.2. With the exception of sample F5MQ4, the samples required TVOA and TVOA-SIM analyses. Samples F5MQ4, F5MP0, F5MP1, F5MP2, and F5MP3 required BNA and BNA-SIM analyses. The TVOA samples are subject to Modified Analysis Request 1359.6 (MA1359.6), which requires the analysis of 18 additional target compounds, including BNA TCL compounds naphthalene and hexachlorobutadiene. The BNA samples are subject to Modified Analysis Request 1859.1 (MA1859.1), which requires the analysis of two additional target compounds. The COC Records designated samples F5MQ5 and F5MQ6 as trip blanks and samples F5MQ7 and F5MQ8 as field blanks. No sample was designated for MS/MSD analyses.

Region 6 Standard Review was performed for this package as requested by the TDF. The target compounds of concern and action levels are listed on pages 118 to 121 of this report. Please note that the reported CRQLs were higher than the action levels for some compounds of concern for many samples because of method limitation or sample dilution. Some target compounds of concern were reported at concentrations over the action levels for TVOA samples F5MP0, F5MP1, F5MP2, F5MP3, and F5MP6 and BNA samples F5MP0, F5MP3, and F5MQ4.

For the target compounds with both the full scan and SIM analysis results available, the SIM analysis results are designated for use unless the corresponding full scan analysis reported results \geq CRQLs. One exception is that the full scan QL for 1,2-dibromo-3-chloropropane was designated for use for TVOA samples F5MP0, F5MP1, F5MP3, and F5MP6 because poor instrument sensitivity rendered the corresponding SIM analysis QL unusable. With the exception of sample F5MQ4, naphthalene and hexachlorobutadiene were target compounds for both the TVOA (MA1359.6) and BNA methods, and the reviewer designated for use the TVOA analysis results to achieve lower QL.

TVOA Many samples had outlying DMC recoveries, but the reviewer could not assess the impact on the results for the additional compounds requested by MA1359.6 because the association of these compounds with DMCs was unavailable to the reviewer.

Samples F5MP0, F5MP1, F5MP2, F5MP3, and F5MP6 were initially analyzed at 25X dilution followed by reanalysis at additional dilution because of extremely high TCL concentrations.

TVOA-SIM Samples F5MP4, F5MP5, F5MP8, F5MP9, F5MQ0, and F5MQ8 were reanalyzed because of poor DMC performance. The reanalyses repeated the problem, demonstrating matrix effect. The original analysis results are designated for use to minimize data qualification. Samples F5MP0, F5MP1, F5MP3, and F5MP6 were only analyzed at 25X dilution because of high matrix levels.

**ORGANIC QA REVIEW
CONTINUATION PAGE**

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

BNA/BNA-SIM Most of the samples were initially analyzed at dilution with some followed by further dilution because of high TCL concentration or matrix level. BNA-SIM samples F5MP2 and F5MP3 were reanalyzed because of poor IS performance, and the reanalyses confirmed matrix effect. The original analysis results are designated for use.

DATA ASSESSMENT: The QC problems affecting data usability are addressed below.

TVOA

- The samples were preserved with acid as indicated by the pH values reported by the laboratory. Please note that polymerization of vinyl chloride and styrene is likely to occur in acid-preserved samples and could cause low-biased results for these two compounds.
- The reviewer qualified the results for the following compounds as estimated because these compounds failed the technical %D criteria for the associated opening CCV:

vinyl chloride in all samples and

carbon tetrachloride in samples F5MP4, F5MP5, F5MP6DL, F5MP8, F5MP9, and F5MQ1.

- The reviewer qualified as estimated the results for methylcyclohexane and 1,2,4-trimethylbenzene in sample F5MP0 and o-xylene in sample F5MP3 because the concentrations exceeded the upper instrument calibration limit. These analytes were diluted below the sample quantitation limits in the diluted reanalyses.
- Bromomethane did not meet the technical minimum RRF criteria for the low point IC. Since the IC raw data demonstrated the instrument sensitivity at the CRQL, the reviewer did not reject the associated non-detect results. Instead, the reviewer qualified the bromomethane QLs as estimated and biased low for all samples because raw data for the associated CCVs indicated a significant loss of instrument sensitivity for bromomethane. In the reviewer's opinion, the actual QL was 10X the reported value for bromomethane.
- Because of possible laboratory contamination, the laboratory "B"-flagged methylene chloride results <CRQLs should be considered undetected and were flagged "U" at the CRQLs on the DST.

ORGANIC QA REVIEW
CONTINUATION PAGE

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

- Because of possible laboratory contamination, the reviewer qualified the laboratory "B"-flagged methylene chloride result >CRQL as undetected ("U"-flagged) for sample F5MQ6 and the reported concentration should be used as a raised QL ("M"-flagged).
- Because of possible field/shipping contamination, results <CRQLs for the following compounds should be considered undetected and were flagged "U" at the CRQLs on the DST:

toluene and m,p-xylene in sample F5MP1,

toluene in sample F5MP2, and

naphthalene in sample F5MP5.
- Because of possible field contamination, the naphthalene results >CRQLs for the following samples were qualified as undetected ("U"-flagged) and the reported concentrations should be used as raised QLs ("M"-flagged): F5MP7, F5MP8, and F5MQ0.
- The reviewer qualified the trichloroethene, tetrachloroethene, ethylbenzene, and isopropylbenzene results >CRQLs as estimated and biased high for sample F5MP8 because the associated VDMC9 recovery exceeded the QC limit.
- Sample F5MP6 had an extremely low VDMC6 recovery (<10%), rendering associated non-detect results unusable. To maximize data usability, the reviewer recommends that the results associated with VDMC6 be taken from the diluted reanalysis (with an acceptable VMDC6 recovery) for this sample.
- The following samples had DMC recoveries below the QC limits, so the reviewer qualified as estimated and biased low the analyte results associated with these DMCs as listed below.

Sample	DMC
F5MP0	VDMC1, VDMC3
F5MP4	VDMC10
F5MP7	VDMC13
F5MP8	VDMC10
F5MQ1	VDMC10
F5MQ6	VDMC13
F5MQ7	VDMC13

- The tert-butylbenzene spectra submitted for sample F5MP6 did not meet the relative intensity compound identification criteria, so the reviewer qualified the tert-butylbenzene identification as tentative for this sample, pending laboratory verification.

**ORGANIC QA REVIEW
CONTINUATION PAGE**

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

- The reviewer qualified the 1,2,4-trimethylbenzene identification as tentative for sample F5MP8 because of questionable RT, pending laboratory verification.

TVOA-SIM

- The instrument had poor sensitivity for 1,2-dibromo-3-chloropropane as demonstrated by the manual integration data submitted for the calibration standards. The raw data for one closing CCV showed that the instrument had difficulty detecting this analyte in the associated samples. Instead of rejecting the affected non-detect results, the reviewer recommends that the QL from the full scan analysis be taken for 1,2-dibromo-3-chloropropane for samples F5MP0, F5MP1, F5MP3, and F5MP6. The reviewer flagged the results in the DST accordingly. The poor instrument sensitivity also affected other samples to a lesser extent. The reviewer qualified the 1,2-dibromo-3-chloropropane QLs for the rest of the TVOA-SIM samples as estimated and biased low, and the actual QL was 10X the reported value in the reviewer's opinion.
- The reviewer qualified as estimated and biased low the 1,2-dibromoethane result for sample F5MP9 and the 1,2-dibromo-3-chloropropane result for sample F5MQ8 because the associated DMCs had recoveries below the QC limits.

BNA

Because of possible laboratory contamination, the laboratory "B"-flagged diethylphthalate and di-n-butylphthalate results <CRQLs for sample F5MP2 should be considered undetected and were flagged "U" at the CRQLs on the DST.

OVERALL ASSESSMENT: Some results were qualified for all TVOA and 12 TVOA-SIM samples because of problems with calibration, laboratory/field/shipping contamination, DMC recovery, and/or compound identification. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

In response to the CCS, the laboratory submitted the calibration form and raw data for the additional target compounds requested by MA1359.6. The reviewer repaginated the resubmitted data to go with the original data package. The resubmitted pages are placed at the beginning of the data package and should be inserted into the CSF package.

The laboratory was contacted for several CSF and reporting issues (see Resubmission Request). The laboratory response is likely to affect the DST.

ORGANIC ACRONYMS

%D	Percent Difference
%RSD	Percent Relative Standard Deviation
ARO	Aroclors
BFB	4-Bromofluorobenzene
BNA	Base/Neutral and Acid
CADRE	Computer-Aided Data Review and Evaluation
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CF	Calibration Factor
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenylphosphine
DMC	Deuterated Monitoring Compound
DST	Data Summary Table
GC/ECD	Gas Chromatograph/Electron Capture Detector
GC/MS	Gas Chromatograph/Mass Spectrometer
GPC	Gel Permeation Chromatography
IC	Initial Calibration
INDA (B,C)	Individual Standard Mixture A(or B or C)
IS	Internal Standard
LCS	Laboratory Control Sample
LMVOA	Low/Medium Volatile Organic Analysis
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NFG	National Functional Guidelines
OTR/COC	Organic Traffic Report/Chain of Custody
PAH	Polynuclear Aromatic Hydrocarbon
PE	Performance Evaluation
PEM	Performance Evaluation Mixture
PEST	Pesticides
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RIC	Reconstructed Ion Chromatogram
RPD	Relative Percent Difference
RRF	Relative Response Factor
RRT	Relative Retention Time
RSCC	Regional Sample Control Center
RT	Retention Time
SDG	Sample Delivery Group
SDMC	Semivolatile Deuterated Monitoring Compound
SIM	Selected Ion Monitoring
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
SVOA	Semivolatile Organic Analysis
TCL	Target Compound List
TCX	Tetrachloro-m-xylene
TIC	Tentatively Identified Compound
TVOA	Trace Volatile Organic Analysis
VDMC	Volatile Deuterated Monitoring Compound
VOA	Volatile Organic Analysis

ORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U** Not detected at reported quantitation limit.
- N** Identification is tentative.
- J** Estimated value.
- L** Reported concentration is below the CRQL.
- M** Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination.
- R** Unusable.
- ^** High biased. Actual concentration may be lower than the concentration reported.
- v** Low biased. Actual concentration may be higher than the concentration reported.
- F+** A false positive exists.
- F-** A false negative exists.
- UJ** Estimated quantitation limit.
- T** Identification is questionable because of absence of other commonly coexisting pesticides.
- C** Identification of pesticide or aroclor has been confirmed by Gas Chromatography/Mass Spectrometer (GC/MS).
- X** Identification of pesticide or aroclor could not be confirmed by GC/MS when attempted.
- *** Result not recommended for use because of associated QA/QC performance inferior to that from other analysis.

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0		
STATION LOCATION	MW-14		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJv
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	UJv
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	UJv
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	UJv
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	1200	U *
Carbon tetrachloride	13	13	U
Benzene	13	9900	U *
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	600	U
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	10000	U *
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	190	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP0		
STATION LOCATION	MW-14		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	13	1300	*
o-Xylene	13	2800	*
m,p-Xylene	13	6800	*
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	75	U
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	400	U
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	240	U
n-Propylbenzene	13	94	U
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	1000	U
Bromobenzene	13	13	U

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0DL		
STATION LOCATION	MW-14		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	1300	1300	U *
Chloromethane	1300	1300	U *
Vinyl chloride	1300	1300	U *
Bromomethane	1300	1300	U *
Chloroethane	1300	1300	U *
Trichlorofluoromethane	1300	1300	U *
1,1-Dichloroethene	1300	1300	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	1300	1300	U *
Acetone	13000	13000	U *
Carbon Disulfide	1300	1300	U *
Methyl acetate	1300	1300	U *
Methylene chloride	1300	1300	U *
trans-1,2-Dichloroethene	1300	1300	U *
Methyl tert-butyl ether	1300	1300	U *
1,1-Dichloroethane	1300	1300	U *
cis-1,2-Dichloroethene	1300	1300	U *
2-Butanone	13000	13000	U *
Bromochloromethane	1300	1300	U *
Chloroform	1300	1300	U *
1,1,1-Trichloroethane	1300	1300	U *
Cyclohexane	1300	1400	
Carbon tetrachloride	1300	1300	U *
Benzene	1300	26000	
1,2-Dichloroethane	1300	1300	U *
Trichloroethene	1300	1300	U *
Methylcyclohexane	1300	1300	U *
1,2-Dichloropropane	1300	1300	U *
Bromodichloromethane	1300	1300	U *
cis-1,3-Dichloropropene	1300	1300	U *
4-Methyl-2-pentanone	13000	13000	U *
Toluene	1300	24000	
trans-1,3-Dichloropropene	1300	1300	U *
1,1,2-Trichloroethane	1300	1300	U *
Tetrachloroethene	1300	1300	U *
2-Hexanone	13000	13000	U *
Dibromochloromethane	1300	1300	U *
1,2-Dibromoethane	1300	1300	U *
Chlorobenzene	1300	1300	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP0DL		
STATION LOCATION	MW-14		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	1300	1100	LJ
o-Xylene	1300	2500	
m,p-Xylene	1300	7300	
Styrene	1300	1300	U *
Bromoform	1300	1300	U *
Isopropylbenzene	1300	1300	U *
1,1,2,2-Tetrachloroethane	1300	1300	U *
1,3-Dichlorobenzene	1300	1300	U *
1,4-Dichlorobenzene	1300	1300	U *
1,2-Dichlorobenzene	1300	1300	U *
1,2-Dibromo-3-chloropropane	1300	1300	U *
1,2,4-Trichlorobenzene	1300	1300	U *
1,2,3-Trichlorobenzene	1300	1300	U *
1,3-Dichloropropane	1300	1300	U *
n-Butylbenzene	1300	1300	U *
sec-Butylbenzene	1300	1300	U *
tert-Butylbenzene	1300	1300	U *
2-Chlorotoluene	1300	1300	U *
4-Chlorotoluene	1300	1300	U *
Dibromomethane	1300	1300	U *
1,3,5-Trimethylbenzene	1300	1300	U *
2,2-Dichloropropane	1300	1300	U *
1,1-Dichloropropene	1300	1300	U *
Hexachlorobutadiene	1300	1300	U *
p-Isopropyltoluene	1300	1300	U *
Naphthalene	1300	710	*
n-Propylbenzene	1300	1300	U *
1,1,1,2-Tetrachloroethane	1300	1300	U *
1,2,3-Trichloropropane	1300	1300	U *
1,2,4-Trimethylbenzene	1300	1300	U *
Bromobenzene	1300	1300	U *

Volume (ml) : 25

Dilution Factor : 2500

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0 (SIM)		
STATION LOCATION	MW-14		
Volatiles	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml) : 25
 Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION	MW-16		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	220	U
Carbon tetrachloride	13	13	U
Benzene	13	1600	U *
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	200	U
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	13	U
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION	MW-16		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	13	2.9	LJ
o-Xylene	13	3.0	LJ
m,p-Xylene	13	13	U
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	14	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	13	U
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	17	
n-Propylbenzene	13	17	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	3.6	LJ
Bromobenzene	13	13	U

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP1DL		
STATION LOCATION	MW-16		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	130	130	U *
Chloromethane	130	130	U *
Vinyl chloride	130	130	U *
Bromomethane	130	130	U *
Chloroethane	130	130	U *
Trichlorofluoromethane	130	130	U *
1,1-Dichloroethene	130	130	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	130	130	U *
Acetone	1300	1300	U *
Carbon Disulfide	130	130	U *
Methyl acetate	130	130	U *
Methylene chloride	130	130	U *
trans-1,2-Dichloroethene	130	130	U *
Methyl tert-butyl ether	130	130	U *
1,1-Dichloroethane	130	130	U *
cis-1,2-Dichloroethene	130	130	U *
2-Butanone	1300	1300	U *
Bromochloromethane	130	130	U *
Chloroform	130	130	U *
1,1,1-Trichloroethane	130	130	U *
Cyclohexane	130	230	U *
Carbon tetrachloride	130	130	U *
Benzene	130	1800	U *
1,2-Dichloroethane	130	130	U *
Trichloroethene	130	130	U *
Methylcyclohexane	130	210	U *
1,2-Dichloropropane	130	130	U *
Bromodichloromethane	130	130	U *
cis-1,3-Dichloropropene	130	130	U *
4-Methyl-2-pentanone	1300	1300	U *
Toluene	130	130	U *
trans-1,3-Dichloropropene	130	130	U *
1,1,2-Trichloroethane	130	130	U *
Tetrachloroethene	130	130	U *
2-Hexanone	1300	1300	U *
Dibromochloromethane	130	130	U *
1,2-Dibromoethane	130	130	U *
Chlorobenzene	130	130	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP1DL		
STATION LOCATION	MW-16		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	130	130	U*
o-Xylene	130	130	U*
m,p-Xylene	130	130	U*
Styrene	130	130	U*
Bromoform	130	130	U*
Isopropylbenzene	130	130	U*
1,1,2,2-Tetrachloroethane	130	130	U*
1,3-Dichlorobenzene	130	130	U*
1,4-Dichlorobenzene	130	130	U*
1,2-Dichlorobenzene	130	130	U*
1,2-Dibromo-3-chloropropane	130	130	U*
1,2,4-Trichlorobenzene	130	130	U*
1,2,3-Trichlorobenzene	130	130	U*
1,3-Dichloropropane	130	130	U*
n-Butylbenzene	130	130	U*
sec-Butylbenzene	130	130	U*
tert-Butylbenzene	130	130	U*
2-Chlorotoluene	130	130	U*
4-Chlorotoluene	130	130	U*
Dibromomethane	130	130	U*
1,3,5-Trimethylbenzene	130	130	U*
2,2-Dichloropropane	130	130	U*
1,1-Dichloropropene	130	130	U*
Hexachlorobutadiene	130	130	U*
p-Isopropyltoluene	130	130	U*
Naphthalene	130	61	U*
n-Propylbenzene	130	130	U*
1,1,1,2-Tetrachloroethane	130	130	U*
1,2,3-Trichloropropane	130	130	U*
1,2,4-Trimethylbenzene	130	130	U*
Bromobenzene	130	130	U*

Volume (ml) : 25
Dilution Factor : 250

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP1 (SIM)		
STATION LOCATION	MW-16		
Volatile	ADJ	RESULT	FLAG
	CRQL		
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2		
STATION LOCATION	MW-17		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	370	U
Carbon tetrachloride	13	13	U
Benzene	13	2200	U *
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	230	U
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	13	U
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP2		
STATION LOCATION	MW-17		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	13	320	
o-Xylene	13	13	
m,p-Xylene	13	310	
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	16	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U*
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	84	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	76	
n-Propylbenzene	13	27	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	240	
Bromobenzene	13	13	U

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2DL		
STATION LOCATION	MW-17		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	130	130	U *
Chloromethane	130	130	U *
Vinyl chloride	130	130	U *
Bromomethane	130	130	U *
Chloroethane	130	130	U *
Trichlorofluoromethane	130	130	U *
1,1-Dichloroethene	130	130	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	130	130	U *
Acetone	1300	1300	U *
Carbon Disulfide	130	130	U *
Methyl acetate	130	130	U *
Methylene chloride	130	130	U *
trans-1,2-Dichloroethene	130	130	U *
Methyl tert-butyl ether	130	130	U *
1,1-Dichloroethane	130	130	U *
cis-1,2-Dichloroethene	130	130	U *
2-Butanone	1300	1300	U *
Bromochloromethane	130	130	U *
Chloroform	130	130	U *
1,1,1-Trichloroethane	130	130	U *
Cyclohexane	130	320	U *
Carbon tetrachloride	130	130	U *
Benzene	130	2500	U *
1,2-Dichloroethane	130	130	U *
Trichloroethene	130	130	U *
Methylcyclohexane	130	210	U *
1,2-Dichloropropane	130	130	U *
Bromodichloromethane	130	130	U *
cis-1,3-Dichloropropene	130	130	U *
4-Methyl-2-pentanone	1300	1300	U *
Toluene	130	130	U *
trans-1,3-Dichloropropene	130	130	U *
1,1,2-Trichloroethane	130	130	U *
Tetrachloroethene	130	130	U *
2-Hexanone	1300	1300	U *
Dibromochloromethane	130	130	U *
1,2-Dibromoethane	130	130	U *
Chlorobenzene	130	130	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP2DL		
STATION LOCATION	MW-17		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	130	260	*
o-Xylene	130	130	U *
m,p-Xylene	130	280	*
Styrene	130	130	U *
Bromoform	130	130	U *
Isopropylbenzene	130	130	U *
1,1,2,2-Tetrachloroethane	130	130	U *
1,3-Dichlorobenzene	130	130	U *
1,4-Dichlorobenzene	130	130	U *
1,2-Dichlorobenzene	130	130	U *
1,2-Dibromo-3-chloropropane	130	130	U *
1,2,4-Trichlorobenzene	130	130	U *
1,2,3-Trichlorobenzene	130	130	U *
1,3-Dichloropropane	130	130	U *
n-Butylbenzene	130	130	U *
sec-Butylbenzene	130	130	U *
tert-Butylbenzene	130	130	U *
2-Chlorotoluene	130	130	U *
4-Chlorotoluene	130	130	U *
Dibromomethane	130	130	U *
1,3,5-Trimethylbenzene	130	130	U *
2,2-Dichloropropane	130	130	U *
1,1-Dichloropropene	130	130	U *
Hexachlorobutadiene	130	130	U *
p-Isopropyltoluene	130	130	U *
Naphthalene	130	100	*
n-Propylbenzene	130	130	U *
1,1,1,2-Tetrachloroethane	130	130	U *
1,2,3-Trichloropropane	130	130	U *
1,2,4-Trimethylbenzene	130	190	*
Bromobenzene	130	130	U *

Volume (ml) : 25

Dilution Factor : 250

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2 (SIM)		
STATION LOCATION		MW-17	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP3		
STATION LOCATION	MW-18		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	1400	U *
Carbon tetrachloride	13	13	U *
Benzene	13	8200	U *
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	800	U *
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	3100	U *
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3		
STATION LOCATION	MW-18		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	13	860	*
o-Xylene	13	510	J
m,p-Xylene	13	2700	*
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	47	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	180	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	130	
n-Propylbenzene	13	44	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	420	
Bromobenzene	13	13	U

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP3DL		
STATION LOCATION	MW-18		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	630	630	U *
Chloromethane	630	630	U *
Vinyl chloride	630	630	U *
Bromomethane	630	630	U *
Chloroethane	630	630	U *
Trichlorofluoromethane	630	630	U *
1,1-Dichloroethene	630	630	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	630	630	U *
Acetone	6300	6300	U *
Carbon Disulfide	630	630	U *
Methyl acetate	630	630	U *
Methylene chloride	630	630	U *
trans-1,2-Dichloroethene	630	630	U *
Methyl tert-butyl ether	630	630	U *
1,1-Dichloroethane	630	630	U *
cis-1,2-Dichloroethene	630	630	U *
2-Butanone	6300	6300	U *
Bromochloromethane	630	630	U *
Chloroform	630	630	U *
1,1,1-Trichloroethane	630	630	U *
Cyclohexane	630	1600	
Carbon tetrachloride	630	630	U *
Benzene	630	21000	
1,2-Dichloroethane	630	630	U *
Trichloroethene	630	630	U *
Methylcyclohexane	630	1100	
1,2-Dichloropropane	630	630	U *
Bromodichloromethane	630	630	U *
cis-1,3-Dichloropropene	630	630	U *
4-Methyl-2-pentanone	6300	6300	U *
Toluene	630	3900	
trans-1,3-Dichloropropene	630	630	U *
1,1,2-Trichloroethane	630	630	U *
Tetrachloroethene	630	630	U *
2-Hexanone	6300	6300	U *
Dibromochloromethane	630	630	U *
1,2-Dibromoethane	630	630	U *
Chlorobenzene	630	630	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3DL		
STATION LOCATION	MW-18		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	630	850	
o-Xylene	630	630	U *
m,p-Xylene	630	2900	
Styrene	630	630	U *
Bromoform	630	630	U *
Isopropylbenzene	630	630	U *
1,1,2,2-Tetrachloroethane	630	630	U *
1,3-Dichlorobenzene	630	630	U *
1,4-Dichlorobenzene	630	630	U *
1,2-Dichlorobenzene	630	630	U *
1,2-Dibromo-3-chloropropane	630	630	U *
1,2,4-Trichlorobenzene	630	630	U *
1,2,3-Trichlorobenzene	630	630	U *
1,3-Dichloropropane	630	630	U *
n-Butylbenzene	630	630	U *
sec-Butylbenzene	630	630	U *
tert-Butylbenzene	630	630	U *
2-Chlorotoluene	630	630	U *
4-Chlorotoluene	630	630	U *
Dibromomethane	630	630	U *
1,3,5-Trimethylbenzene	630	630	U *
2,2-Dichloropropane	630	630	U *
1,1-Dichloropropene	630	630	U *
Hexachlorobutadiene	630	630	U *
p-Isopropyltoluene	630	630	U *
Naphthalene	630	320	*
n-Propylbenzene	630	630	U *
1,1,1,2-Tetrachloroethane	630	630	U *
1,2,3-Trichloropropane	630	630	U *
1,2,4-Trimethylbenzene	630	410	*
Bromobenzene	630	630	U *

Volume (ml) : 25

Dilution Factor : 1250

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP3 (SIM)		
STATION LOCATION		MW-18	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP4		
STATION LOCATION	MW-4		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	3.5	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	6.1	
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP4		
STATION LOCATION	MW-4		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.58	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP4 (SIM)		
STATION LOCATION	MW-4		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP4RE (SIM)		
STATION LOCATION	ADJ	MW-4	
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP5		
STATION LOCATION	MW-9		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	19	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	1.1	
Methylcyclohexane	0.50	49	*
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.1	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP5		
STATION LOCATION	MW-9		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.91	
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP5DL		
STATION LOCATION	MW-9		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	2.5	2.5	U *
Chloromethane	2.5	2.5	U *
Vinyl chloride	2.5	2.5	U *
Bromomethane	2.5	2.5	U *
Chloroethane	2.5	2.5	U *
Trichlorofluoromethane	2.5	2.5	U *
1,1-Dichloroethene	2.5	2.5	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	2.5	U *
Acetone	25	25	U *
Carbon Disulfide	2.5	2.5	U *
Methyl acetate	2.5	2.5	U *
Methylene chloride	2.5	2.5	U *
trans-1,2-Dichloroethene	2.5	2.5	U *
Methyl tert-butyl ether	2.5	2.5	U *
1,1-Dichloroethane	2.5	2.5	U *
cis-1,2-Dichloroethene	2.5	2.5	U *
2-Butanone	25	25	U *
Bromochloromethane	2.5	2.5	U *
Chloroform	2.5	2.5	U *
1,1,1-Trichloroethane	2.5	2.5	U *
Cyclohexane	2.5	12	U *
Carbon tetrachloride	2.5	2.5	U *
Benzene	2.5	2.5	U *
1,2-Dichloroethane	2.5	2.5	U *
Trichloroethene	2.5	1.2	U *
Methylcyclohexane	2.5	39	U *
1,2-Dichloropropane	2.5	2.5	U *
Bromodichloromethane	2.5	2.5	U *
cis-1,3-Dichloropropene	2.5	2.5	U *
4-Methyl-2-pentanone	25	25	U *
Toluene	2.5	2.5	U *
trans-1,3-Dichloropropene	2.5	2.5	U *
1,1,2-Trichloroethane	2.5	2.5	U *
Tetrachloroethene	2.5	0.98	U *
2-Hexanone	25	25	U *
Dibromochloromethane	2.5	2.5	U *
1,2-Dibromoethane	2.5	2.5	U *
Chlorobenzene	2.5	2.5	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP5DL		
STATION LOCATION	MW-9		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	2.5	2.5	U*
o-Xylene	2.5	2.5	U*
m,p-Xylene	2.5	2.5	U*
Styrene	2.5	2.5	U*
Bromoform	2.5	2.5	U*
Isopropylbenzene	2.5	2.5	U*
1,1,2,2-Tetrachloroethane	2.5	2.5	U*
1,3-Dichlorobenzene	2.5	2.5	U*
1,4-Dichlorobenzene	2.5	2.5	U*
1,2-Dichlorobenzene	2.5	2.5	U*
1,2-Dibromo-3-chloropropane	2.5	2.5	U*
1,2,4-Trichlorobenzene	2.5	2.5	U*
1,2,3-Trichlorobenzene	2.5	2.5	U*
1,3-Dichloropropane	2.5	2.5	U*
n-Butylbenzene	2.5	2.5	U*
sec-Butylbenzene	2.5	2.5	U*
tert-Butylbenzene	2.5	2.5	U*
2-Chlorotoluene	2.5	2.5	U*
4-Chlorotoluene	2.5	2.5	U*
Dibromomethane	2.5	2.5	U*
1,3,5-Trimethylbenzene	2.5	2.5	U*
2,2-Dichloropropane	2.5	2.5	U*
1,1-Dichloropropene	2.5	2.5	U*
Hexachlorobutadiene	2.5	2.5	U*
p-Isopropyltoluene	2.5	2.5	U*
Naphthalene	2.5	2.5	U*
n-Propylbenzene	2.5	2.5	U*
1,1,1,2-Tetrachloroethane	2.5	2.5	U*
1,2,3-Trichloropropane	2.5	2.5	U*
1,2,4-Trimethylbenzene	2.5	2.5	U*
Bromobenzene	2.5	2.5	U*

Volume (ml) : 25

Dilution Factor : 5

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP5 (SIM)		
STATION LOCATION		MW-9	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP5RE (SIM)		
STATION LOCATION	ADJ	MW-9	
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP6		
STATION LOCATION	MW-19		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U *
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U *
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U *
Methylene chloride	13	12	U *
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U *
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U *
Cyclohexane	13	540	U *
Carbon tetrachloride	13	13	U *
Benzene	13	3200	U *
1,2-Dichloroethane	13	13	U *
Trichloroethene	13	13	U
Methylcyclohexane	13	290	U
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	27	U
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP6		
STATION LOCATION	MW-19		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	13	410	
o-Xylene	13	18	
m,p-Xylene	13	520	*
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	21	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	34	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	72	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	130	
n-Propylbenzene	13	33	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	250	
Bromobenzene	13	13	U

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP6DL		
STATION LOCATION		MW-19	
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	250	250	U *
Chloromethane	250	250	U *
Vinyl chloride	250	250	U *
Bromomethane	250	250	U *
Chloroethane	250	250	U *
Trichlorofluoromethane	250	250	U
1,1-Dichloroethene	250	250	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	250	250	U
Acetone	2500	2500	U *
Carbon Disulfide	250	250	U *
Methyl acetate	250	250	U
Methylene chloride	250	250	U
trans-1,2-Dichloroethene	250	250	U *
Methyl tert-butyl ether	250	250	U
1,1-Dichloroethane	250	250	U *
cis-1,2-Dichloroethene	250	250	U *
2-Butanone	2500	2500	U *
Bromochloromethane	250	250	U *
Chloroform	250	250	U *
1,1,1-Trichloroethane	250	250	U
Cyclohexane	250	570	
Carbon tetrachloride	250	250	UJ
Benzene	250	3900	
1,2-Dichloroethane	250	250	U
Trichloroethene	250	250	U *
Methylcyclohexane	250	270	*
1,2-Dichloropropane	250	250	U *
Bromodichloromethane	250	250	U *
cis-1,3-Dichloropropene	250	250	U *
4-Methyl-2-pentanone	2500	2500	U *
Toluene	250	46	*
trans-1,3-Dichloropropene	250	250	U *
1,1,2-Trichloroethane	250	250	U *
Tetrachloroethene	250	250	U *
2-Hexanone	2500	2500	U *
Dibromochloromethane	250	250	U *
1,2-Dibromoethane	250	250	U *
Chlorobenzene	250	250	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP6DL		
STATION LOCATION	MW-19		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	250	370	*
o-Xylene	250	250	U *
m,p-Xylene	250	480	
Styrene	250	250	U *
Bromoform	250	250	U *
Isopropylbenzene	250	250	U *
1,1,2,2-Tetrachloroethane	250	250	U *
1,3-Dichlorobenzene	250	250	U *
1,4-Dichlorobenzene	250	250	U *
1,2-Dichlorobenzene	250	250	U *
1,2-Dibromo-3-chloropropane	250	250	U *
1,2,4-Trichlorobenzene	250	250	U *
1,2,3-Trichlorobenzene	250	250	U *
1,3-Dichloropropane	250	250	U *
n-Butylbenzene	250	250	U *
sec-Butylbenzene	250	250	U *
tert-Butylbenzene	250	250	U *
2-Chlorotoluene	250	250	U *
4-Chlorotoluene	250	250	U *
Dibromomethane	250	250	U *
1,3,5-Trimethylbenzene	250	250	U *
2,2-Dichloropropane	250	250	U *
1,1-Dichloropropene	250	250	U *
Hexachlorobutadiene	250	250	U *
p-Isopropyltoluene	250	250	U *
Naphthalene	250	170	*
n-Propylbenzene	250	250	U *
1,1,1,2-Tetrachloroethane	250	250	U *
1,2,3-Trichloropropane	250	250	U *
1,2,4-Trimethylbenzene	250	200	*
Bromobenzene	250	250	U *

Volume (ml) : 25

Dilution Factor : 500

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP6 (SIM)		
STATION LOCATION		MW-19	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml) : 25
 Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP7		
STATION LOCATION	MW-20		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	2.4	
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP7		
STATION LOCATION	MW-20		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJv
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	1.0	UM
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP7 (SIM)		
STATION LOCATION	MW-20		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP8		
STATION LOCATION	MW-21		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.78	
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	1.1	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.53	
Trichloroethene	0.50	2.3	J ^A
Methylcyclohexane	0.50	130	*
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	1.2	J ^A
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP8		
STATION LOCATION		MW-21	
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	5.9	J ^A
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	2.0	J ^A
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.27	LJ
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	1.8	UM
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	1.6	N
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP8DL		
STATION LOCATION	MW-21		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	5.0	5.0	U*
Chloromethane	5.0	5.0	U*
Vinyl chloride	5.0	5.0	U*
Bromomethane	5.0	5.0	U*
Chloroethane	5.0	5.0	U*
Trichlorofluoromethane	5.0	5.0	U*
1,1-Dichloroethene	5.0	5.0	U*
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	5.0	U*
Acetone	50	50	U*
Carbon Disulfide	5.0	5.0	U*
Methyl acetate	5.0	5.0	U*
Methylene chloride	5.0	2.3	U*
trans-1,2-Dichloroethene	5.0	5.0	U*
Methyl tert-butyl ether	5.0	5.0	U*
1,1-Dichloroethane	5.0	5.0	U*
cis-1,2-Dichloroethene	5.0	5.0	U*
2-Butanone	50	50	U*
Bromochloromethane	5.0	5.0	U*
Chloroform	5.0	5.0	U*
1,1,1-Trichloroethane	5.0	5.0	U*
Cyclohexane	5.0	5.0	U*
Carbon tetrachloride	5.0	5.0	U*
Benzene	5.0	5.0	U*
1,2-Dichloroethane	5.0	5.0	U*
Trichloroethene	5.0	2.7	U*
Methylcyclohexane	5.0	120	U*
1,2-Dichloropropane	5.0	5.0	U*
Bromodichloromethane	5.0	5.0	U*
cis-1,3-Dichloropropene	5.0	5.0	U*
4-Methyl-2-pentanone	50	50	U*
Toluene	5.0	5.0	U*
trans-1,3-Dichloropropene	5.0	5.0	U*
1,1,2-Trichloroethane	5.0	5.0	U*
Tetrachloroethene	5.0	5.0	U*
2-Hexanone	50	50	U*
Dibromochloromethane	5.0	5.0	U*
1,2-Dibromoethane	5.0	5.0	U*
Chlorobenzene	5.0	5.0	U*

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP8DL		
STATION LOCATION	MW-21		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	5.0	5.4	*
o-Xylene	5.0	5.0	U *
m,p-Xylene	5.0	5.0	U *
Styrene	5.0	5.0	U *
Bromoform	5.0	5.0	U *
Isopropylbenzene	5.0	5.0	U *
1,1,2,2-Tetrachloroethane	5.0	5.0	U *
1,3-Dichlorobenzene	5.0	5.0	U *
1,4-Dichlorobenzene	5.0	5.0	U *
1,2-Dichlorobenzene	5.0	5.0	U *
1,2-Dibromo-3-chloropropane	5.0	5.0	U *
1,2,4-Trichlorobenzene	5.0	5.0	U *
1,2,3-Trichlorobenzene	5.0	5.0	U *
1,3-Dichloropropane	5.0	5.0	U *
n-Butylbenzene	5.0	5.0	U *
sec-Butylbenzene	5.0	5.0	U *
tert-Butylbenzene	5.0	5.0	U *
2-Chlorotoluene	5.0	5.0	U *
4-Chlorotoluene	5.0	5.0	U *
Dibromomethane	5.0	5.0	U *
1,3,5-Trimethylbenzene	5.0	5.0	U *
2,2-Dichloropropane	5.0	5.0	U *
1,1-Dichloropropene	5.0	5.0	U *
Hexachlorobutadiene	5.0	5.0	U *
p-Isopropyltoluene	5.0	5.0	U *
Naphthalene	5.0	5.0	U *
n-Propylbenzene	5.0	5.0	U *
1,1,1,2-Tetrachloroethane	5.0	5.0	U *
1,2,3-Trichloropropane	5.0	5.0	U *
1,2,4-Trimethylbenzene	5.0	5.0	U *
Bromobenzene	5.0	5.0	U *

Volume (ml) : 25

Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP8 (SIM)		
STATION LOCATION		MW-21	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP8RE (SIM)		
STATION LOCATION		MW-21	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP9		
STATION LOCATION	MW-22		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.28	UJ
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	1.2	
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.3	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP9		
STATION LOCATION	MW-22		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP9 (SIM)		
STATION LOCATION	MW-22		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	UJv
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP9RE (SIM)		
STATION LOCATION	MW-22		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ0		
STATION LOCATION	MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.73	
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	1.0	
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.33	LJ
1,2-Dichloroethane	0.50	0.48	LJ
Trichloroethene	0.50	2.2	
Methylcyclohexane	0.50	120	*
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.1	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ0		
STATION LOCATION	MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	5.6	
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	1.9	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	2.2	UM
n-Propylbenzene	0.50	2.5	
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ0DL		
STATION LOCATION	MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	5.0	5.0	U *
Chloromethane	5.0	5.0	U *
Vinyl chloride	5.0	5.0	U *
Bromomethane	5.0	5.0	U *
Chloroethane	5.0	5.0	U *
Trichlorofluoromethane	5.0	5.0	U *
1,1-Dichloroethene	5.0	5.0	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	5.0	U *
Acetone	50	50	U *
Carbon Disulfide	5.0	5.0	U *
Methyl acetate	5.0	5.0	U *
Methylene chloride	5.0	5.0	U *
trans-1,2-Dichloroethene	5.0	5.0	U *
Methyl tert-butyl ether	5.0	5.0	U *
1,1-Dichloroethane	5.0	5.0	U *
cis-1,2-Dichloroethene	5.0	5.0	U *
2-Butanone	50	50	U *
Bromochloromethane	5.0	5.0	U *
Chloroform	5.0	5.0	U *
1,1,1-Trichloroethane	5.0	5.0	U *
Cyclohexane	5.0	5.0	U *
Carbon tetrachloride	5.0	5.0	U *
Benzene	5.0	5.0	U *
1,2-Dichloroethane	5.0	5.0	U *
Trichloroethene	5.0	2.9	U *
Methylcyclohexane	5.0	120	U *
1,2-Dichloropropane	5.0	5.0	U *
Bromodichloromethane	5.0	5.0	U *
cis-1,3-Dichloropropene	5.0	5.0	U *
4-Methyl-2-pentanone	50	50	U *
Toluene	5.0	5.0	U *
trans-1,3-Dichloropropene	5.0	5.0	U *
1,1,2-Trichloroethane	5.0	5.0	U *
Tetrachloroethene	5.0	5.0	U *
2-Hexanone	50	50	U *
Dibromochloromethane	5.0	5.0	U *
1,2-Dibromoethane	5.0	5.0	U *
Chlorobenzene	5.0	5.0	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ0DL		
STATION LOCATION	MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	5.0	5.7	*
o-Xylene	5.0	5.0	U *
m,p-Xylene	5.0	5.0	U *
Styrene	5.0	5.0	U *
Bromoform	5.0	5.0	U *
Isopropylbenzene	5.0	5.0	U *
1,1,2,2-Tetrachloroethane	5.0	5.0	U *
1,3-Dichlorobenzene	5.0	5.0	U *
1,4-Dichlorobenzene	5.0	5.0	U *
1,2-Dichlorobenzene	5.0	5.0	U *
1,2-Dibromo-3-chloropropane	5.0	5.0	U *
1,2,4-Trichlorobenzene	5.0	5.0	U *
1,2,3-Trichlorobenzene	5.0	5.0	U *
1,3-Dichloropropane	5.0	5.0	U *
n-Butylbenzene	5.0	5.0	U *
sec-Butylbenzene	5.0	5.0	U *
tert-Butylbenzene	5.0	5.0	U *
2-Chlorotoluene	5.0	5.0	U *
4-Chlorotoluene	5.0	5.0	U *
Dibromomethane	5.0	5.0	U *
1,3,5-Trimethylbenzene	5.0	5.0	U *
2,2-Dichloropropane	5.0	5.0	U *
1,1-Dichloropropene	5.0	5.0	U *
Hexachlorobutadiene	5.0	5.0	U *
p-Isopropyltoluene	5.0	5.0	U *
Naphthalene	5.0	2.9	*
n-Propylbenzene	5.0	5.0	U *
1,1,1,2-Tetrachloroethane	5.0	5.0	U *
1,2,3-Trichloropropane	5.0	5.0	U *
1,2,4-Trimethylbenzene	5.0	5.0	U *
Bromobenzene	5.0	5.0	U *

Volume (ml) : 25

Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ0 (SIM)		
STATION LOCATION		MW-21-D	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ0RE (SIM)		
STATION LOCATION	MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ1		
STATION LOCATION	MW-4-D		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	3.8	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	6.8	
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ1		
STATION LOCATION	MW-4-D		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.67	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ1 (SIM)		
STATION LOCATION	MW-4-D		
Volatiles	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ5		
STATION LOCATION	TB-1		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ5		
STATION LOCATION	TB-1		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.32	L
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ5 (SIM)		
STATION LOCATION	ADJ	TB-1	
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ6		
STATION LOCATION	TB-2		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.68	UM
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ6		
STATION LOCATION	TB-2		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJv
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.66	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ6 (SIM)		
STATION LOCATION		TB-2	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ7		
STATION LOCATION	FB-1		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.27	UJ
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ7		
STATION LOCATION		FB-1	
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJv
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.66	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.14	LJ
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T: Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ7 (SIM)		
STATION LOCATION	ADJ	FB-1	
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ8		
STATION LOCATION	FB-2		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.42	UJ
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.38	UJ
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ8		
STATION LOCATION	FB-2		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.33	LJ
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.97	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ8 (SIM)		
STATION LOCATION		FB-2	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ8RE (SIM)		
STATION LOCATION	ADJ	FB-2	
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No.: 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0		
STATION LOCATION	MW-14		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	U
Benzaldehyde	50	50	U
Phenol	50	1900	*
Bis(2-Chloroethyl)ether	50	50	U
2-Chlorophenol	50	50	U
2-Methylphenol	50	1800	*
2,2'-Oxybis(1-chloropropane)	50	50	U
Acetophenone	50	50	U
4-Methylphenol	50	1200	*
N-Nitroso-di-n-propylamine	50	50	U
Hexachloroethane	50	50	U
Nitrobenzene	50	50	U
Isophorone	50	50	U
2-Nitrophenol	50	50	U
2,4-Dimethylphenol	50	900	*
Bis(2-chloroethoxy)methane	50	50	U
2,4-Dichlorophenol	50	50	U
Naphthalene	50	340	*
4-Chloroaniline	50	50	U
Hexachlorobutadiene	50	50	U*
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	83	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	4.2	U
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	U
Dimethylphthalate	50	50	U
2,6-Dinitrotoluene	50	50	U
Acenaphthylene	50	50	U*
3-Nitroaniline	100	100	U
Acenaphthene	50	50	U*
2,4-Dinitrophenol	100	100	U
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP0		
STATION LOCATION	MW-14		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	50	50	U
Fluorene	50	50	U*
4-Chlorophenyl-phenylether	50	50	U
4-Nitroaniline	100	100	U
4,6-Dinitro-2-methylphenol	100	100	U
N-Nitrosodiphenylamine	50	50	U
1,2,4,5-Tetrachlorobenzene	50	50	U
4-Bromophenyl-phenylether	50	50	U
Hexachlorobenzene	50	50	U
Atrazine	50	50	U
Pentachlorophenol	100	100	U*
Phenanthrene	50	50	U*
Anthracene	50	50	U*
Carbazole	50	50	U
Di-n-butylphthalate	50	50	U
Fluoranthene	50	50	U*
Pyrene	50	50	U*
Butylbenzylphthalate	50	50	U
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U*
Chrysene	50	50	U*
Bis(2-ethylhexyl)phthalate	50	50	U
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U*
Benzo(k)fluoranthene	50	50	U*
Benzo(a)pyrene	50	50	U*
Indeno(1,2,3-cd)pyrene	50	50	U*
Dibenzo(a,h)anthracene	50	50	U*
Benzo(g,h,i)perylene	50	50	U*
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml) : 1000

Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0DL		
STATION LOCATION	MW-14		
Semivolatiles	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	500	500	U *
Aniline	500	500	U *
Benzaldehyde	250	250	U *
Phenol	250	1200	
Bis(2-Chloroethyl)ether	250	250	U *
2-Chlorophenol	250	250	U *
2-Methylphenol	250	1200	
2,2'-Oxybis(1-chloropropane)	250	250	U *
Acetophenone	250	250	U *
4-Methylphenol	250	830	
N-Nitroso-di-n-propylamine	250	250	U *
Hexachloroethane	250	250	U *
Nitrobenzene	250	250	U *
Isophorone	250	250	U *
2-Nitrophenol	250	250	U *
2,4-Dimethylphenol	250	620	
Bis(2-chloroethoxy)methane	250	250	U *
2,4-Dichlorophenol	250	250	U *
Naphthalene	250	250	*
4-Chloroaniline	250	250	U *
Hexachlorobutadiene	250	250	U *
Caprolactam	250	250	U *
4-Chloro-3-methylphenol	250	250	U *
2-Methylnaphthalene	250	60	*
Hexachlorocyclopentadiene	250	250	U *
2,4,6-Trichlorophenol	250	250	U *
2,4,5-Trichlorophenol	250	250	U *
1,1'-Biphenyl	250	250	U *
2-Chloronaphthalene	250	250	U *
2-Nitroaniline	500	500	U *
Dimethylphthalate	250	250	U *
2,6-Dinitrotoluene	250	250	U *
Acenaphthylene	250	250	U *
3-Nitroaniline	500	500	U *
Acenaphthene	250	250	U *
2,4-Dinitrophenol	500	500	U *
4-Nitrophenol	500	500	U *
Dibenzofuran	250	250	U *
2,4-Dinitrotoluene	250	250	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP0DL		
STATION LOCATION	MW-14		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	250	250	U *
Fluorene	250	250	U *
4-Chlorophenyl-phenylether	250	250	U *
4-Nitroaniline	500	500	U *
4,6-Dinitro-2-methylphenol	500	500	U *
N-Nitrosodiphenylamine	250	250	U *
1,2,4,5-Tetrachlorobenzene	250	250	U *
4-Bromophenyl-phenylether	250	250	U *
Hexachlorobenzene	250	250	U *
Atrazine	250	250	U *
Pentachlorophenol	500	500	U *
Phenanthrene	250	250	U *
Anthracene	250	250	U *
Carbazole	250	250	U *
Di-n-butylphthalate	250	250	U *
Fluoranthene	250	250	U *
Pyrene	250	250	U *
Butylbenzylphthalate	250	250	U *
3,3'-Dichlorobenzidine	250	250	U *
Benzo(a)anthracene	250	250	U *
Chrysene	250	250	U *
Bis(2-ethylhexyl)phthalate	250	250	U *
Di-n-octylphthalate	250	250	U *
Benzo(b)fluoranthene	250	250	U *
Benzo(k)fluoranthene	250	250	U *
Benzo(a)pyrene	250	250	U *
Indeno(1,2,3-cd)pyrene	250	250	U *
Dibenzo(a,h)anthracene	250	250	U *
Benzo(g,h,i)perylene	250	250	U *
2,3,4,6-Tetrachlorophenol	250	250	U *

Volume (ml) : 1000

Dilution Factor : 50

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0 (SIM)		
STATION LOCATION	MW-14		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	1.0	240	*
2-Methylnaphthalene	1.0	140	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U
Fluorene	1.0	0.49	LJ
Pentachlorophenol	2.0	2.0	U
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	U
Fluoranthene	1.0	1.0	U
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	U
Chrysene	1.0	1.0	U
Benzo(b)fluoranthene	1.0	1.0	U
Benzo(k)fluoranthene	1.0	1.0	U
Benzo(a)pyrene	1.0	1.0	U
Indeno(1,2,3-cd)pyrene	1.0	1.0	U
Dibenzo(a,h)anthracene	1.0	1.0	U
Benzo(g,h,i)perylene	1.0	1.0	U

Volume (ml) : 1000
Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP0DL (SIM)		
STATION LOCATION	MW-14		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	40	330	*
2-Methylnaphthalene	40	99	*
Acenaphthylene	40	40	U *
Acenaphthene	40	40	U *
Fluorene	40	40	U *
Pentachlorophenol	80	80	U *
Phenanthrene	40	40	U *
Anthracene	40	40	U *
Fluoranthene	40	40	U *
Pyrene	40	40	U *
Benzo(a)anthracene	40	40	U *
Chrysene	40	40	U *
Benzo(b)fluoranthene	40	40	U *
Benzo(k)fluoranthene	40	40	U *
Benzo(a)pyrene	40	40	U *
Indeno(1,2,3-cd)pyrene	40	40	U *
Dibenzo(a,h)anthracene	40	40	U *
Benzo(g,h,i)perylene	40	40	U *

Volume (ml) : 1000

Dilution Factor : 400

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION	MW-16		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	200	200	U
Aniline	200	200	U
Benzaldehyde	100	100	U
Phenol	100	100	U
Bis(2-Chloroethyl)ether	100	100	U
2-Chlorophenol	100	100	U
2-Methylphenol	100	100	U
2,2'-Oxybis(1-chloropropane)	100	100	U
Acetophenone	100	100	U
4-Methylphenol	100	100	U
N-Nitroso-di-n-propylamine	100	100	U
Hexachloroethane	100	100	U
Nitrobenzene	100	100	U
Isophorone	100	100	U
2-Nitrophenol	100	100	U
2,4-Dimethylphenol	100	100	U
Bis(2-chloroethoxy)methane	100	100	U
2,4-Dichlorophenol	100	100	U
Naphthalene	100	12	*
4-Chloroaniline	100	100	U
Hexachlorobutadiene	100	100	*
Caprolactam	100	100	U
4-Chloro-3-methylphenol	100	100	U
2-Methylnaphthalene	100	100	*
Hexachlorocyclopentadiene	100	100	U
2,4,6-Trichlorophenol	100	100	U
2,4,5-Trichlorophenol	100	100	U
1,1'-Biphenyl	100	100	U
2-Chloronaphthalene	100	100	U
2-Nitroaniline	200	200	U
Dimethylphthalate	100	100	U
2,6-Dinitrotoluene	100	100	U
Acenaphthylene	100	100	*
3-Nitroaniline	200	200	U
Acenaphthene	100	100	*
2,4-Dinitrophenol	200	200	U
4-Nitrophenol	200	200	U
Dibenzofuran	100	100	U
2,4-Dinitrotoluene	100	100	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION	MW-16		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	100	100	U
Fluorene	100	100	U*
4-Chlorophenyl-phenylether	100	100	U
4-Nitroaniline	200	200	U
4,6-Dinitro-2-methylphenol	200	200	U
N-Nitrosodiphenylamine	100	100	U
1,2,4,5-Tetrachlorobenzene	100	100	U
4-Bromophenyl-phenylether	100	100	U
Hexachlorobenzene	100	100	U
Atrazine	100	100	U
Pentachlorophenol	200	200	U*
Phenanthrene	100	100	U*
Anthracene	100	100	U*
Carbazole	100	100	U
Di-n-butylphthalate	100	100	U
Fluoranthene	100	100	U*
Pyrene	100	100	U*
Butylbenzylphthalate	100	100	U
3,3'-Dichlorobenzidine	100	100	U
Benzo(a)anthracene	100	100	U*
Chrysene	100	100	U*
Bis(2-ethylhexyl)phthalate	100	100	U
Di-n-octylphthalate	100	100	U
Benzo(b)fluoranthene	100	100	U*
Benzo(k)fluoranthene	100	100	U*
Benzo(a)pyrene	100	100	U*
Indeno(1,2,3-cd)pyrene	100	100	U*
Dibenzo(a,h)anthracene	100	100	U*
Benzo(g,h,i)perylene	100	100	U*
2,3,4,6-Tetrachlorophenol	100	100	U

Volume (ml) : 1000
 Dilution Factor : 20

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP1 (SIM)		
STATION LOCATION		MW-16	
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	2.0	8.1	*
2-Methylnaphthalene	2.0	2.7	
Acenaphthylene	2.0	2.0	U
Acenaphthene	2.0	2.0	U
Fluorene	2.0	2.0	U
Pentachlorophenol	4.0	4.0	U
Phenanthrene	2.0	2.0	U
Anthracene	2.0	2.0	U
Fluoranthene	2.0	2.0	U
Pyrene	2.0	2.0	U
Benzo(a)anthracene	2.0	2.0	U
Chrysene	2.0	2.0	U
Benzo(b)fluoranthene	2.0	2.0	U
Benzo(k)fluoranthene	2.0	2.0	U
Benzo(a)pyrene	2.0	2.0	U
Indeno(1,2,3-cd)pyrene	2.0	2.0	U
Dibenzo(a,h)anthracene	2.0	2.0	U
Benzo(g,h,i)perylene	2.0	2.0	U

Volume (ml) : 1000
Dilution Factor : 20

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2		
STATION LOCATION	MW-17		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	10	10	U
Aniline	10	10	U
Benzaldehyde	5.0	5.0	U
Phenol	5.0	7.2	U
Bis(2-Chloroethyl)ether	5.0	5.0	U
2-Chlorophenol	5.0	5.0	U
2-Methylphenol	5.0	5.0	U
2,2'-Oxybis(1-chloropropane)	5.0	5.0	U
Acetophenone	5.0	5.0	U
4-Methylphenol	5.0	5.0	U
N-Nitroso-di-n-propylamine	5.0	5.0	U
Hexachloroethane	5.0	5.0	U
Nitrobenzene	5.0	5.0	U
Isophorone	5.0	5.0	U
2-Nitrophenol	5.0	5.0	U
2,4-Dimethylphenol	5.0	5.0	U
Bis(2-chloroethoxy)methane	5.0	5.0	U
2,4-Dichlorophenol	5.0	5.0	U
Naphthalene	5.0	52	U *
4-Chloroaniline	5.0	5.0	U *
Hexachlorobutadiene	5.0	5.0	U *
Caprolactam	5.0	5.0	U
4-Chloro-3-methylphenol	5.0	5.0	U
2-Methylnaphthalene	5.0	18	U
Hexachlorocyclopentadiene	5.0	5.0	U
2,4,6-Trichlorophenol	5.0	5.0	U
2,4,5-Trichlorophenol	5.0	5.0	U
1,1'-Biphenyl	5.0	0.58	U
2-Chloronaphthalene	5.0	5.0	U
2-Nitroaniline	10	10	U
Dimethylphthalate	5.0	5.0	U
2,6-Dinitrotoluene	5.0	5.0	U
Acenaphthylene	5.0	5.0	U *
3-Nitroaniline	10	10	U
Acenaphthene	5.0	5.0	U *
2,4-Dinitrophenol	10	10	U
4-Nitrophenol	10	10	U
Dibenzofuran	5.0	5.0	U
2,4-Dinitrotoluene	5.0	5.0	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2		
STATION LOCATION	MW-17		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	5.0	5.0	U
Fluorene	5.0	0.46	*
4-Chlorophenyl-phenylether	5.0	5.0	U
4-Nitroaniline	10	10	U
4,6-Dinitro-2-methylphenol	10	10	U
N-Nitrosodiphenylamine	5.0	5.0	U
1,2,4,5-Tetrachlorobenzene	5.0	5.0	U
4-Bromophenyl-phenylether	5.0	5.0	U
Hexachlorobenzene	5.0	5.0	U
Atrazine	5.0	5.0	U
Pentachlorophenol	10	10	U*
Phenanthrene	5.0	0.29	*
Anthracene	5.0	5.0	U*
Carbazole	5.0	5.0	U
Di-n-butylphthalate	5.0	5.0	U
Fluoranthene	5.0	5.0	U*
Pyrene	5.0	5.0	U*
Butylbenzylphthalate	5.0	5.0	U
3,3'-Dichlorobenzidine	5.0	5.0	U
Benzo(a)anthracene	5.0	5.0	U*
Chrysene	5.0	5.0	U*
Bis(2-ethylhexyl)phthalate	5.0	2.0	LJ
Di-n-octylphthalate	5.0	5.0	U
Benzo(b)fluoranthene	5.0	5.0	U*
Benzo(k)fluoranthene	5.0	5.0	U*
Benzo(a)pyrene	5.0	5.0	U*
Indeno(1,2,3-cd)pyrene	5.0	5.0	U*
Dibenzo(a,h)anthracene	5.0	5.0	U*
Benzo(g,h,i)perylene	5.0	5.0	U*
2,3,4,6-Tetrachlorophenol	5.0	5.0	U

Volume (ml) : 1000
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2 (SIM)		
STATION LOCATION	MW-17		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	0.10	61	*
2-Methylnaphthalene	0.10	49	*
Acenaphthylene	0.10	0.10	U
Acenaphthene	0.10	0.23	
Fluorene	0.10	0.33	
Pentachlorophenol	0.20	0.20	U
Phenanthrene	0.10	0.13	
Anthracene	0.10	0.10	U
Fluoranthene	0.10	0.10	U
Pyrene	0.10	0.10	U
Benzo(a)anthracene	0.10	0.10	U
Chrysene	0.10	0.10	U
Benzo(b)fluoranthene	0.10	0.10	U
Benzo(k)fluoranthene	0.10	0.10	U
Benzo(a)pyrene	0.10	0.10	U
Indeno(1,2,3-cd)pyrene	0.10	0.10	U
Dibenzo(a,h)anthracene	0.10	0.10	U
Benzo(g,h,i)perylene	0.10	0.10	U

Volume (ml) : 1000
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2DL (SIM)		
STATION LOCATION	MW-17		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	5.0	37	*
2-Methylnaphthalene	5.0	24	*
Acenaphthylene	5.0	5.0	U *
Acenaphthene	5.0	5.0	U *
Fluorene	5.0	5.0	U *
Pentachlorophenol	10	10	U *
Phenanthrene	5.0	5.0	U *
Anthracene	5.0	5.0	U *
Fluoranthene	5.0	5.0	U *
Pyrene	5.0	5.0	U *
Benzo(a)anthracene	5.0	5.0	U *
Chrysene	5.0	5.0	U *
Benzo(b)fluoranthene	5.0	5.0	U *
Benzo(k)fluoranthene	5.0	5.0	U *
Benzo(a)pyrene	5.0	5.0	U *
Indeno(1,2,3-cd)pyrene	5.0	5.0	U *
Dibenzo(a,h)anthracene	5.0	5.0	U *
Benzo(g,h,i)perylene	5.0	5.0	U *

Volume (ml) : 1000
Dilution Factor : 50

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2RE (SIM)		
STATION LOCATION	MW-17		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	0.10	62	*
2-Methylnaphthalene	0.10	47	*
Acenaphthylene	0.10	0.10	U *
Acenaphthene	0.10	0.21	*
Fluorene	0.10	0.32	*
Pentachlorophenol	0.20	0.20	U *
Phenanthrene	0.10	0.13	*
Anthracene	0.10	0.10	U *
Fluoranthene	0.10	0.10	U *
Pyrene	0.10	0.10	U *
Benzo(a)anthracene	0.10	0.10	U *
Chrysene	0.10	0.10	U *
Benzo(b)fluoranthene	0.10	0.10	U *
Benzo(k)fluoranthene	0.10	0.10	U *
Benzo(a)pyrene	0.10	0.10	U *
Indeno(1,2,3-cd)pyrene	0.10	0.10	U *
Dibenzo(a,h)anthracene	0.10	0.10	U *
Benzo(g,h,i)perylene	0.10	0.10	U *

Volume (ml) : 1000

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3		
STATION LOCATION	MW-18		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	U
Benzaldehyde	50	50	U
Phenol	50	92	U
Bis(2-Chloroethyl)ether	50	50	U
2-Chlorophenol	50	50	U
2-Methylphenol	50	360	
2,2'-Oxybis(1-chloropropane)	50	50	U
Acetophenone	50	9.5	LJ
4-Methylphenol	50	190	
N-Nitroso-di-n-propylamine	50	50	U
Hexachloroethane	50	50	U
Nitrobenzene	50	50	U
Isophorone	50	50	U
2-Nitrophenol	50	50	U
2,4-Dimethylphenol	50	870	*
Bis(2-chloroethoxy)methane	50	50	U
2,4-Dichlorophenol	50	50	U
Naphthalene	50	190	*
4-Chloroaniline	50	50	U
Hexachlorobutadiene	50	50	U
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	51	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	50	U
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	U
Dimethylphthalate	50	50	U
2,6-Dinitrotoluene	50	50	U
Acenaphthylene	50	50	U
3-Nitroaniline	100	100	U
Acenaphthene	50	50	U
2,4-Dinitrophenol	100	100	U
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP3		
STATION LOCATION	MW-18		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	50	50	U
Fluorene	50	50	U *
4-Chlorophenyl-phenylether	50	50	U
4-Nitroaniline	100	100	U
4,6-Dinitro-2-methylphenol	100	100	U
N-Nitrosodiphenylamine	50	50	U
1,2,4,5-Tetrachlorobenzene	50	50	U
4-Bromophenyl-phenylether	50	50	U
Hexachlorobenzene	50	50	U
Atrazine	50	50	U
Pentachlorophenol	100	100	U *
Phenanthrene	50	50	U *
Anthracene	50	50	U *
Carbazole	50	50	U
Di-n-butylphthalate	50	50	U
Fluoranthene	50	50	U *
Pyrene	50	50	U *
Butylbenzylphthalate	50	50	U
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U *
Chrysene	50	50	U *
Bis(2-ethylhexyl)phthalate	50	50	U
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U *
Benzo(k)fluoranthene	50	50	U *
Benzo(a)pyrene	50	50	U *
Indeno(1,2,3-cd)pyrene	50	50	U *
Dibenzo(a,h)anthracene	50	50	U *
Benzo(g,h,i)perylene	50	50	U *
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml) : 1000

Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3DL		
STATION LOCATION		MW-18	
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	200	200	U *
Aniline	200	200	U *
Benzaldehyde	100	100	U *
Phenol	100	51	*
Bis(2-Chloroethyl)ether	100	100	U *
2-Chlorophenol	100	100	U *
2-Methylphenol	100	210	*
2,2'-Oxybis(1-chloropropane)	100	100	U *
Acetophenone	100	100	U *
4-Methylphenol	100	100	*
N-Nitroso-di-n-propylamine	100	100	U *
Hexachloroethane	100	100	U *
Nitrobenzene	100	100	U *
Isophorone	100	100	U *
2-Nitrophenol	100	100	U *
2,4-Dimethylphenol	100	500	
Bis(2-chloroethoxy)methane	100	100	U *
2,4-Dichlorophenol	100	100	U *
Naphthalene	100	110	*
4-Chloroaniline	100	100	U *
Hexachlorobutadiene	100	100	U *
Caprolactam	100	100	U *
4-Chloro-3-methylphenol	100	100	U *
2-Methylnaphthalene	100	31	*
Hexachlorocyclopentadiene	100	100	U *
2,4,6-Trichlorophenol	100	100	U *
2,4,5-Trichlorophenol	100	100	U *
1,1'-Biphenyl	100	100	U *
2-Chloronaphthalene	100	100	U *
2-Nitroaniline	200	200	U *
Dimethylphthalate	100	100	U *
2,6-Dinitrotoluene	100	100	U *
Acenaphthylene	100	100	U *
3-Nitroaniline	200	200	U *
Acenaphthene	100	100	U *
2,4-Dinitrophenol	200	200	U *
4-Nitrophenol	200	200	U *
Dibenzofuran	100	100	U *
2,4-Dinitrotoluene	100	100	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP3DL		
STATION LOCATION		MW-18	
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	100	100	U *
Fluorene	100	100	U *
4-Chlorophenyl-phenylether	100	100	U *
4-Nitroaniline	200	200	U *
4,6-Dinitro-2-methylphenol	200	200	U *
N-Nitrosodiphenylamine	100	100	U *
1,2,4,5-Tetrachlorobenzene	100	100	U *
4-Bromophenyl-phenylether	100	100	U *
Hexachlorobenzene	100	100	U *
Atrazine	100	100	U *
Pentachlorophenol	200	200	U *
Phenanthrene	100	100	U *
Anthracene	100	100	U *
Carbazole	100	100	U *
Di-n-butylphthalate	100	100	U *
Fluoranthene	100	100	U *
Pyrene	100	100	U *
Butylbenzylphthalate	100	100	U *
3,3'-Dichlorobenzidine	100	100	U *
Benzo(a)anthracene	100	100	U *
Chrysene	100	100	U *
Bis(2-ethylhexyl)phthalate	100	100	U *
Di-n-octylphthalate	100	100	U *
Benzo(b)fluoranthene	100	100	U *
Benzo(k)fluoranthene	100	100	U *
Benzo(a)pyrene	100	100	U *
Indeno(1,2,3-cd)pyrene	100	100	U *
Dibenzo(a,h)anthracene	100	100	U *
Benzo(g,h,i)perylene	100	100	U *
2,3,4,6-Tetrachlorophenol	100	100	U *

Volume (ml) : 1000

Dilution Factor : 20

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3 (SIM)		
STATION LOCATION	MW-18		
Semivolatiles	ADJ CRQL	RESULT	FLAG
Naphthalene	1.0	43	*
2-Methylnaphthalene	1.0	25	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U
Fluorene	1.0	1.0	U
Pentachlorophenol	2.0	2.0	U
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	U
Fluoranthene	1.0	1.0	U
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	U
Chrysene	1.0	1.0	U
Benzo(b)fluoranthene	1.0	1.0	U
Benzo(k)fluoranthene	1.0	1.0	U
Benzo(a)pyrene	1.0	1.0	U
Indeno(1,2,3-cd)pyrene	1.0	1.0	U
Dibenzo(a,h)anthracene	1.0	1.0	U
Benzo(g,h,i)perylene	1.0	1.0	U

Volume (ml) : 1000
Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3DL (SIM)		
STATION LOCATION	MW-18		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	20	130	*
2-Methylnaphthalene	20	54	*
Acenaphthylene	20	20	U *
Acenaphthene	20	20	U *
Fluorene	20	20	U *
Pentachlorophenol	40	40	U *
Phenanthrene	20	20	U *
Anthracene	20	20	U *
Fluoranthene	20	20	U *
Pyrene	20	20	U *
Benzo(a)anthracene	20	20	U *
Chrysene	20	20	U *
Benzo(b)fluoranthene	20	20	U *
Benzo(k)fluoranthene	20	20	U *
Benzo(a)pyrene	20	20	U *
Indeno(1,2,3-cd)pyrene	20	20	U *
Dibenzo(a,h)anthracene	20	20	U *
Benzo(g,h,i)perylene	20	20	U *

Volume (ml) : 1000
Dilution Factor : 200

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3RE (SIM)		
STATION LOCATION	MW-18		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	1.0	50	*
2-Methylnaphthalene	1.0	30	*
Acenaphthylene	1.0	1.0	U *
Acenaphthene	1.0	1.0	U *
Fluorene	1.0	1.0	U *
Pentachlorophenol	2.0	2.0	U *
Phenanthrene	1.0	1.0	U *
Anthracene	1.0	1.0	U *
Fluoranthene	1.0	1.0	U *
Pyrene	1.0	1.0	U *
Benzo(a)anthracene	1.0	1.0	U *
Chrysene	1.0	1.0	U *
Benzo(b)fluoranthene	1.0	1.0	U *
Benzo(k)fluoranthene	1.0	1.0	U *
Benzo(a)pyrene	1.0	1.0	U *
Indeno(1,2,3-cd)pyrene	1.0	1.0	U *
Dibenzo(a,h)anthracene	1.0	1.0	U *
Benzo(g,h,i)perylene	1.0	1.0	U *

Volume (ml) : 1000
Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ4		
STATION LOCATION	MW-14-D		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	U
Benzaldehyde	50	50	U
Phenol	50	1600	*
Bis(2-Chloroethyl)ether	50	50	U
2-Chlorophenol	50	50	U
2-Methylphenol	50	1600	*
2,2'-Oxybis(1-chloropropane)	50	50	U
Acetophenone	50	50	U
4-Methylphenol	50	1100	*
N-Nitroso-di-n-propylamine	50	50	U
Hexachloroethane	50	50	U
Nitrobenzene	50	50	U
Isophorone	50	50	U
2-Nitrophenol	50	50	U
2,4-Dimethylphenol	50	840	*
Bis(2-chloroethoxy)methane	50	50	U
2,4-Dichlorophenol	50	50	U
Naphthalene	50	320	
4-Chloroaniline	50	50	U
Hexachlorobutadiene	50	50	U
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	75	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	4.8	LJ
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	U
Dimethylphthalate	50	50	U
2,6-Dinitrotoluene	50	50	U
Acenaphthylene	50	50	U*
3-Nitroaniline	100	100	U
Acenaphthene	50	50	U*
2,4-Dinitrophenol	100	100	U
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ4		
STATION LOCATION		MW-14-D	
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	50	50	U
Fluorene	50	50	U *
4-Chlorophenyl-phenylether	50	50	U
4-Nitroaniline	100	100	U
4,6-Dinitro-2-methylphenol	100	100	U
N-Nitrosodiphenylamine	50	50	U
1,2,4,5-Tetrachlorobenzene	50	50	U
4-Bromophenyl-phenylether	50	50	U
Hexachlorobenzene	50	50	U
Atrazine	50	50	U
Pentachlorophenol	100	100	U *
Phenanthrene	50	50	U *
Anthracene	50	50	U *
Carbazole	50	50	U
Di-n-butylphthalate	50	50	U
Fluoranthene	50	50	U *
Pyrene	50	50	U *
Butylbenzylphthalate	50	50	U
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U *
Chrysene	50	50	U *
Bis(2-ethylhexyl)phthalate	50	50	U
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U *
Benzo(k)fluoranthene	50	50	U *
Benzo(a)pyrene	50	50	U *
Indeno(1,2,3-cd)pyrene	50	50	U *
Dibenzo(a,h)anthracene	50	50	U *
Benzo(g,h,i)perylene	50	50	U *
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml) : 1000
Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ4DL		
STATION LOCATION	MW-14-D		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	500	500	U *
Aniline	500	500	U *
Benzaldehyde	250	250	U *
Phenol	250	1000	
Bis(2-Chloroethyl)ether	250	250	U *
2-Chlorophenol	250	250	U *
2-Methylphenol	250	1000	
2,2'-Oxybis(1-chloropropane)	250	250	U *
Acetophenone	250	250	U *
4-Methylphenol	250	700	
N-Nitroso-di-n-propylamine	250	250	U *
Hexachloroethane	250	250	U *
Nitrobenzene	250	250	U *
Isophorone	250	250	U *
2-Nitrophenol	250	250	U *
2,4-Dimethylphenol	250	530	
Bis(2-chloroethoxy)methane	250	250	U *
2,4-Dichlorophenol	250	250	U *
Naphthalene	250	210	*
4-Chloroaniline	250	250	U *
Hexachlorobutadiene	250	250	U *
Caprolactam	250	250	U *
4-Chloro-3-methylphenol	250	250	U *
2-Methylnaphthalene	250	52	*
Hexachlorocyclopentadiene	250	250	U *
2,4,6-Trichlorophenol	250	250	U *
2,4,5-Trichlorophenol	250	250	U *
1,1'-Biphenyl	250	250	U *
2-Chloronaphthalene	250	250	U *
2-Nitroaniline	500	500	U *
Dimethylphthalate	250	250	U *
2,6-Dinitrotoluene	250	250	U *
Acenaphthylene	250	250	U *
3-Nitroaniline	500	500	U *
Acenaphthene	250	250	U *
2,4-Dinitrophenol	500	500	U *
4-Nitrophenol	500	500	U *
Dibenzofuran	250	250	U *
2,4-Dinitrotoluene	250	250	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ4DL		
STATION LOCATION	MW-14-D		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	250	250	U *
Fluorene	250	250	U *
4-Chlorophenyl-phenylether	250	250	U *
4-Nitroaniline	500	500	U *
4,6-Dinitro-2-methylphenol	500	500	U *
N-Nitrosodiphenylamine	250	250	U *
1,2,4,5-Tetrachlorobenzene	250	250	U *
4-Bromophenyl-phenylether	250	250	U *
Hexachlorobenzene	250	250	U *
Atrazine	250	250	U *
Pentachlorophenol	500	500	U *
Phenanthrene	250	250	U *
Anthracene	250	250	U *
Carbazole	250	250	U *
Di-n-butylphthalate	250	250	U *
Fluoranthene	250	250	U *
Pyrene	250	250	U *
Butylbenzylphthalate	250	250	U *
3,3'-Dichlorobenzidine	250	250	U *
Benzo(a)anthracene	250	250	U *
Chrysene	250	250	U *
Bis(2-ethylhexyl)phthalate	250	250	U *
Di-n-octylphthalate	250	250	U *
Benzo(b)fluoranthene	250	250	U *
Benzo(k)fluoranthene	250	250	U *
Benzo(a)pyrene	250	250	U *
Indeno(1,2,3-cd)pyrene	250	250	U *
Dibenzo(a,h)anthracene	250	250	U *
Benzo(g,h,i)perylene	250	250	U *
2,3,4,6-Tetrachlorophenol	250	250	U *

Volume (ml) : 1000
Dilution Factor : 50

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ4 (SIM)		
STATION LOCATION	MW-14-D		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	1.0	150	*
2-Methylnaphthalene	1.0	20	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U
Fluorene	1.0	1.0	U
Pentachlorophenol	2.0	2.0	U
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	U
Fluoranthene	1.0	1.0	U
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	U
Chrysene	1.0	1.0	U
Benzo(b)fluoranthene	1.0	1.0	U
Benzo(k)fluoranthene	1.0	1.0	U
Benzo(a)pyrene	1.0	1.0	U
Indeno(1,2,3-cd)pyrene	1.0	1.0	U
Dibenzo(a,h)anthracene	1.0	1.0	U
Benzo(g,h,i)perylene	1.0	1.0	U

Volume (ml) : 1000

Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ4DL (SIM)		
STATION LOCATION	MW-14-D		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	40	250	*
2-Methylnaphthalene	40	68	*
Acenaphthylene	40	40	U *
Acenaphthene	40	40	U *
Fluorene	40	40	U *
Pentachlorophenol	80	80	U *
Phenanthrene	40	40	U *
Anthracene	40	40	U *
Fluoranthene	40	40	U *
Pyrene	40	40	U *
Benzo(a)anthracene	40	40	U *
Chrysene	40	40	U *
Benzo(b)fluoranthene	40	40	U *
Benzo(k)fluoranthene	40	40	U *
Benzo(a)pyrene	40	40	U *
Indeno(1,2,3-cd)pyrene	40	40	U *
Dibenzo(a,h)anthracene	40	40	U *
Benzo(g,h,i)perylene	40	40	U *

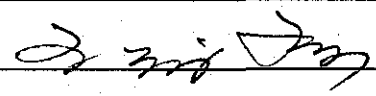
Volume (ml) : 1000
 Dilution Factor : 400

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 42498 SDG No. F5MP0 SDG Nos. To Follow Mod. Ref No. 1359.6 & 1859.1 Date Rec. 6/1/12

EPA Lab ID: <u>A4</u> Lab Location: <u>The Woodlands, TX</u> Region: <u>6</u> Audit No.: <u>42498/F5MP0</u> Re_Submitted CSF? Yes No <u>X</u> Box No(s): <u>1</u> COMMENTS: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Item</th> <th style="width: 90%;">Description</th> </tr> </thead> <tbody> <tr> <td>9, 10</td> <td>One COC Record was not signed/dated by laboratory personnel. The laboratory was contacted for resolution.</td> </tr> <tr> <td>Others</td> <td>The airbill number reported on the Form DC-1 on p. 1733 was illegible, and the auditor made the necessary correction.</td> </tr> </tbody> </table> Over for additional comments.	Item	Description	9, 10	One COC Record was not signed/dated by laboratory personnel. The laboratory was contacted for resolution.	Others	The airbill number reported on the Form DC-1 on p. 1733 was illegible, and the auditor made the necessary correction.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">ORIGINALS</th> <th style="width: 10%;">YES</th> <th style="width: 10%;">NO</th> <th style="width: 10%;">N/A</th> </tr> </thead> <tbody> <tr> <td colspan="4">CUSTODY SEALS</td> </tr> <tr> <td>1. Present on package?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>2. Intact upon receipt?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td colspan="4">FORM DC-2</td> </tr> <tr> <td>3. Numbering scheme accurate?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>4. Are enclosed documents listed?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>5. Are listed documents enclosed?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td colspan="4">FORM DC-1</td> </tr> <tr> <td>6. Present?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>7. Complete?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>8. Accurate?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td colspan="4">TRAFFIC REPORT /CHAIN-OF-CUSTODY RECORD(s)</td> </tr> <tr> <td>9. Signed?</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td>10. Dated?</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td colspan="4">AIRBILLS/AIRBILL STICKER</td> </tr> <tr> <td>11. Present?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>12. Signed?</td> <td></td> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td>13. Dated?</td> <td></td> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td colspan="4">SAMPLE TAGS</td> </tr> <tr> <td>14. Does DC-1 list tags as being included?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>15. Present?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td colspan="4">OTHER DOCUMENTS</td> </tr> <tr> <td>16. Complete?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>17. Legible?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>18. Original?</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td>18a. If "NO", does the copy indicate where original documents are located?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> </tbody> </table>	ORIGINALS	YES	NO	N/A	CUSTODY SEALS				1. Present on package?	X			2. Intact upon receipt?	X			FORM DC-2				3. Numbering scheme accurate?	X			4. Are enclosed documents listed?	X			5. Are listed documents enclosed?	X			FORM DC-1				6. Present?	X			7. Complete?	X			8. Accurate?	X			TRAFFIC REPORT /CHAIN-OF-CUSTODY RECORD(s)				9. Signed?		X		10. Dated?		X		AIRBILLS/AIRBILL STICKER				11. Present?	X			12. Signed?			X	13. Dated?			X	SAMPLE TAGS				14. Does DC-1 list tags as being included?	X			15. Present?	X			OTHER DOCUMENTS				16. Complete?	X			17. Legible?	X			18. Original?		X		18a. If "NO", does the copy indicate where original documents are located?	X		
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Audited by: 
 Audited by: _____
Signature

Tseng-Ying Fan / ESAT Data Reviewer

Printed Name/Title

Date 7/12/12
 Date _____

DC-2

In Reference To Case No(s):
42498 SDG: F5MP0 (O-0882)

**Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Resubmission Request**

Laboratory Name:	A4
Lab Contact:	Laxmi Teerupalli
Region:	6
Regional Contact:	Raymond Flores - EPA
ESAT Reviewer:	Tseng-Ying Fan - ESAT

In reference to data for the following fraction(s):

CSF Deliverables TVOA BNA BNA-SIM

Summary of Questions/Issues:

A. CSF Deliverables

The Sample Custodian did not sign/date the COC Record associated with BNA sample F5MQ4 (p. 24). Please submit a signed and dated copy.

B. TVOA

1. TCL compound 1,2,4-trichlorobenzene was omitted from the IC quantitation reports on pp. 699 and 706. Please resubmit these pages to report the missing data.
2. Sample F5MP6:
 - (a) The reported target compounds had RTs almost identical to those in the associated CCV except for tert-butylbenzene. The spectra for tert-butylbenzene also did not appear to meet the relative intensity criteria for identification. Please provide a better spectrum or reconsider the identification of this compound.
 - (b) The elution order for DMCs benzene-d6 and 1,2-dichloroethane-d4 was reversed compared to the associated opening CCV. Please double check the identification for these DMCs and make the necessary correction and resubmission.
3. Sample F5MP8: The reported target compounds had almost identical RTs to those in the associated CCV except for 1,2,4-trimethylbenzene. Please double check the ID for this analyte. Correct and resubmit data and reporting form as needed.

Resubmission Request

Continuation Page: 2

Laboratory/Contact: A4/ Laxmi Teerupalli

In Reference to Case No.: 42498 SDG: F5MP0

C. BNA

Modified Analysis Request 1859.1 requires that the laboratory select the appropriate ISS and DMCs to be associated with the two MA target compounds and document the selections in the SDG Narrative. Please comply with this requirement and resubmit the SDG Narrative.

D. BNA-SIM

Form 2 (p. 1485): The DMC recoveries for SDMC18 were erroneously reported under the column for SDMC17, and vice versa. Please correct and resubmit this Form 2.

NOTE: Any laboratory resubmission should be submitted either as an addendum to the original CSF with a revised Form DC-2 or submitted as a new CSF with a new Form DC-2 except for replacement pages (SOM01.2, p. B-33, sec. 2.6.3). Custody seals are required for all such shipments.

Please respond to the above items **within 7 days** by e-mail to Flores.Raymond@epa.gov and by regular mail to:

Mr. Raymond Flores
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx

AirbillNo: 7983 6077 0990

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-151441-0009

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474000 (HCL pH<2), 6-474001 (HCL pH<2), 6-474002 (HCL pH<2), 6-474003 (HCL pH<2), 6-474004 (HCL pH<2), 6-474005 (HCL pH<2) (6)	MW-14	05/10/2012 09:05	MF5MP0	Field Sample
F5MP1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474016 (HCL pH<2), 6-474017 (HCL pH<2), 6-474018 (HCL pH<2), 6-474019 (HCL pH<2), 6-474020 (HCL pH<2), 6-474021 (HCL pH<2) (6)	MW-16	05/10/2012 07:35	MF5MP1	Field Sample
F5MP2	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474028 (HCL pH<2), 6-474029 (HCL pH<2), 6-474030 (HCL pH<2), 6-474031 (HCL pH<2), 6-474032 (HCL pH<2), 6-474033 (HCL pH<2) (6)	MW-17	05/10/2012 12:19	MF5MP2	Field Sample
F5MP3	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474039 (HCL pH<2), 6-474040 (HCL pH<2), 6-474041 (HCL pH<2), 6-474042 (HCL pH<2), 6-474043 (HCL pH<2), 6-474044 (HCL pH<2) (6)	MW-18	05/09/2012 17:37	MF5MP3	Field Sample

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	<i>[Signature]</i>	5-10-2012									

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USEPA CLP Organics COC (REGION COPY)

Date Shipped: 5/10/2012

Carrier Name: FedEx

Airbill No: 7983 6077 0990

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-151441-0009

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

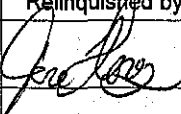
Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP6	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474062 (HCL pH<2), 6-474063 (HCL pH<2), 6-474064 (HCL pH<2), 6-474065 (HCL pH<2), 6-474066 (HCL pH<2), 6-474067 (HCL pH<2) (6)	MW-19	05/10/2012 11:20		Field Sample
F5MP9	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474080 (HCL pH<2), 6-474081 (HCL pH<2), 6-474082 (HCL pH<2), 6-474083 (HCL pH<2), 6-474084 (HCL pH<2), 6-474085 (HCL pH<2) (6)	MW-22	05/09/2012 16:28		Field Sample
F5MQ6	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474134 (HCL pH<2), 6-474135 (HCL pH<2), 6-474136 (HCL pH<2), 6-474137 (HCL pH<2), 6-474138 (HCL pH<2), 6-474139 (HCL pH<2) (6)	TB-2	05/09/2012 21:30		Trip Blank
F5MQ8	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474146 (HCL pH<2), 6-474147 (HCL pH<2), 6-474148 (HCL pH<2), 6-474149 (HCL pH<2), 6-474150 (HCL pH<2), 6-474151 (HCL pH<2) (6)	FB-2	05/10/2012 07:36		Field Blank

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
		5-10-12									

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USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx

AirbillNo: 7983 6076 6288

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-050912-222243-0001

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP4	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474050 (HCL pH<2), 6-474051 (HCL pH<2), 6-474052 (HCL pH<2), 6-474053 (HCL pH<2), 6-474054 (HCL pH<2), 6-474055 (HCL pH<2) (6)	MW-4	05/09/2012 10:47		Field Sample
F5MP5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474056 (HCL pH<2), 6-474057 (HCL pH<2), 6-474058 (HCL pH<2), 6-474059 (HCL pH<2), 6-474060 (HCL pH<2), 6-474061 (HCL pH<2) (6)	MW-9	05/09/2012 14:12		Field Sample
F5MP7	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474068 (HCL pH<2), 6-474069 (HCL pH<2), 6-474070 (HCL pH<2), 6-474071 (HCL pH<2), 6-474072 (HCL pH<2), 6-474073 (HCL pH<2) (6)	MW-20	05/09/2012 12:02		Field Sample
F5MP8	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474074 (HCL pH<2), 6-474075 (HCL pH<2), 6-474076 (HCL pH<2), 6-474077 (HCL pH<2), 6-474078 (HCL pH<2), 6-474079 (HCL pH<2) (6)	MW-21	05/09/2012 15:20		Field Sample

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	<i>Jose Flores</i>	5/10/12									

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USEPA CLP Organics COC (REGION COPY)

Date Shipped: 5/10/2012

Carrier Name: FedEx

Airbill No: 7983 6076 6288

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-050912-222243-0001

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MQ0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474086 (HCL pH<2), 6-474087 (HCL pH<2), 6-474088 (HCL pH<2), 6-474089 (HCL pH<2), 6-474090 (HCL pH<2), 6-474091 (HCL pH<2) (6)	MW-21-D	05/09/2012 15:20		Field Duplicate
F5MQ1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474092 (HCL pH<2), 6-474093 (HCL pH<2), 6-474094 (HCL pH<2), 6-474095 (HCL pH<2), 6-474096 (HCL pH<2), 6-474097 (HCL pH<2) (6)	MW-4-D	05/09/2012 10:47		Field Duplicate
F5MQ5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474128 (HCL pH<2), 6-474129 (HCL pH<2), 6-474130 (HCL pH<2), 6-474131 (HCL pH<2), 6-474132 (HCL pH<2), 6-474133 (HCL pH<2) (6)	TB-1	05/09/2012 07:30		Trip Blank
F5MQ7	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474140 (HCL pH<2), 6-474141 (HCL pH<2), 6-474142 (HCL pH<2), 6-474143 (HCL pH<2), 6-474144 (HCL pH<2), 6-474145 (HCL pH<2) (6)	FB-1	05/09/2012 16:22		Field Blank

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	<i>[Signature]</i>	5/10/12									

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AirbillNo: 7935 3008 5105

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-172143-0012

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1

Shipment for Case Complete? Y**Samples Transferred From Chain of Custody #**

Analysis Key: SV/SV SIM=SV/SV SIM-MA#1859.1-SOM01.2

[illegible]

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AirbillNo: 7935 3009 0858

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-172816-0013

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Shipment for Case Complete? Y
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	Samples Transferred From Chain of Custody #

Items/Reason	Relinquished by	Date	Received by	Date	Time
	Jane Brown	5-18-12			

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AirbillNo: 7935 3008 3422

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-171208-0011

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #	
1	2
3	4
5	6
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93	94
95	96
97	98
99	100

Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2

[illegible]

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AirbillNo: 7983 6076 7836

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-050912-223702-0002

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2

[illegible]

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AirbillNo: 7935 3027 3107

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-163408-0010

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2

[illegible]

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R&H OIL/TROPICANA ENERGY SITE
GROUND WATER ANALYTE LIST – VOCs

VOLATILE ORGANIC COMPOUNDS (VOCs)				
Constituent	Extent Evaluation Comparison			Value
	mg/L	mg/L	µg/L	
✓ 1,2-Dibromo-3-chloropropane	2.00E-04	0.00020	0.20	
✓ 1,2-Dibromoethane	5.00E-05	0.00005	0.05	
✓ 1,2-Dichlorobenzene	6.00E-01	0.60000	600.00	
✓ 1,2-Dichloroethane	5.00E-03	0.00500	5.00	
✓ 1,2-Dichloropropane	5.00E-03	0.00500	5.00	
MA ✓ 1,3,5-Trimethylbenzene	2.50E-02	0.02500	25.00	
✓ 1,3-Dichlorobenzene	7.30E-01	0.73000	730.00	
MA ✓ 1,3-Dichloropropane <i>in 500 mg</i>	9.10E-03	0.00910	9.10	
✓ 1,4-Dichlorobenzene	7.50E-02	0.07500	75.00	
MA ✓ 2,2-Dichloropropane	1.30E-02	0.01300	13.00	
✓ 2-Butanone	1.50E+01	15.00000	15000.00	
MA ✓ 2-Chlorotoluene	4.90E-01	0.49000	490.00	
✓ 2-Hexanone	1.20E-01	0.12000	120.00	
MA ✓ 4-Chlorotoluene	1.70E+00	1.70000	1700.00	
✓ 4-Methyl-2-pentanone	2.00E+00	2.00000	2000.00	
✓ Acetone	2.20E+01	22.00000	22000.00	
✓ Benzene	5.00E-03	0.00500	5.00	
MA ✓ Bromobenzene	2.00E-01	0.20000	200.00	
✓ Bromodichloromethane	2.10E-03	0.00210	2.10	
✓ Bromoform	1.20E-01	0.12000	120.00	
✓ Bromomethane	2.00E-02	0.02000	20.00	
✓ Carbon disulfide	5.60E-01	0.56000	560.00	
✓ Carbon tetrachloride	5.00E-03	0.00500	5.00	
✓ Chlorobenzene	1.00E-01	0.10000	100.00	
✓ Chloroethane	9.80E+00	9.80000	9800.00	

VOLATILE ORGANIC COMPOUNDS (VOCs)			
Constituent	Extent Evaluation Comparison Value		
	mg/L	mg/L	ug/L
✓ Chloroform	8.00E-02	0.08000	80.00
✓ Chloromethane	6.70E-03	0.00670	6.70
✓ cis-1,2-Dichloroethene	7.00E-02	0.07000	70.00
✓ cis-1,3-Dichloropropene	1.70E-03	0.00170	1.70
✓ Dibromochloromethane (chlorodibromomethane)	3.20E-03	0.00320	3.20
MA Dibromomethane	1.20E-01	0.12000	120.00
✓ Dichlorodifluoromethane	1.40E-02	0.01400	14.00
✓ Ethylbenzene	7.00E-01	0.70000	700.00
SVOC Hexachlorobutadiene	3.30E-04	0.00033	0.33
✓ Isopropylbenzene (Cumene)	8.40E-03	0.00840	8.40
→ NO Methyl iodide (iodomethane)	3.40E-02	0.03400	34.00
✓ Methylene chloride	5.00E-03	0.00500	5.00
SVOC Naphthalene	1.50E-01	0.15000	150.00
MA n-Butylbenzene	2.60E-01	0.26000	260.00
MA n-Propylbenzene	3.20E-01	0.32000	320.00
MA p-Isopropyltoluene	2.40E+00	2.40000	2400.00
MA sec-Butylbenzene	2.50E-01	0.25000	250.00
✓ Styrene	1.00E-01	0.10000	100.00
✓ tert-Butyl methyl ether (MTBE)	2.40E-01	0.24000	240.00
MA tert-Butylbenzene	2.90E-01	0.29000	290.00
✓ Tetrachloroethene	5.00E-03	0.00500	5.00
✓ Toluene	1.00E+00	1.00000	1000.00
✓ trans-1,2-Dichloroethene	1.00E-01	0.10000	100.00
✓ trans-1,3-Dichloropropene	9.10E-03	0.00910	9.10
✓ Trichloroethene	5.00E-03	0.00500	5.00
✓ Trichlorofluoromethane	1.80E-01	0.18000	180.00
✓ Vinyl chloride	2.00E-03	0.00200	2.00
✓ Xylenes (total)	1.00E+01	10.00000	10000.00

SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)				
Constituent		Extent Evaluation Comparison Value		
		mg/L	mg/L	µg/L
✓	Benzo(a)anthracene	1.30E-03	0.00130	1.30
✓	Benzo(a)pyrene	2.00E-04	0.00020	0.20
✓	Benzo(b)fluoranthene	1.30E-03	0.00130	1.30
✓	Benzo(g,h,i)perylene	7.30E-01	0.73000	730.00
✓	Benzo(k)fluoranthene	1.30E-02	0.01300	13.00
→ No	Benzo(l)fluoranthene	2.40E+00	2.40000	2400.00
✓	Bis(2-Chloroethoxy)methane	8.30E-04	0.00083	0.83
✓	Bis(2-Chloroethyl)ether	8.30E-04	0.00083	0.83
✓	Bis(2-Chloroisopropyl)ether	1.30E-02	0.01300	13.00
✓	Bis(2-Ethylhexyl)phthalate	6.00E-03	0.00600	6.00
✓	Butyl benzyl phthalate	4.80E-01	0.48000	480.00
✓	Chrysene	1.30E-01	0.13000	130.00
✓	Dibenz(a,h)anthracene	2.00E-04	0.00020	0.20
✓	Dibenzofuran	9.80E-02	0.09800	98.00
✓	Diethyl phthalate	2.00E+01	20.00000	20000.00
✓	Dimethyl phthalate	2.00E+01	20.00000	20000.00
✓	Di-n-butyl phthalate	2.40E+00	2.40000	2400.00
✓	Di-n-octyl phthalate	4.90E-01	0.49000	490.00
✓	Fluoranthene	9.80E-01	0.98000	980.00
✓	Fluorene	9.80E-01	0.98000	980.00
✓	Hexachlorobenzene	1.00E-03	0.00100	1.00
✓	Hexachlorocyclopentadiene	5.00E-02	0.05000	50.00
✓	Hexachloroethane	3.80E-03	0.00380	3.80
✓	Indeno(1,2,3-cd)pyrene	1.30E-03	0.00130	1.30
✓	Isophorone	9.60E-01	0.96000	960.00
✓	Nitrobenzene	4.90E-02	0.04900	49.00
✓	n-Nitrosodi-n-propylamine	1.30E-04	0.00013	0.13
✓	Pentachlorophenol	1.00E-03	0.00100	1.00
✓	Phenanthrene	7.30E-01	0.73000	730.00
✓	Phenol	7.30E+00	7.30000	7300.00
✓	Pyrene	7.30E-01	0.73000	730.00

R&H OIL/TROPICANA ENERGY SITE
GROUND WATER ANALYTE LIST – SVOCs

SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)			
Constituent	Extent Evaluation Comparison Value		
	mg/L	mg/L	µg/L
✓ 2,4,5-Trichlorophenol	2.40E+00	2.40000	2400.00
✓ 2,4,6-Trichlorophenol	2.40E-02	0.02400	24.00
✓ 2,4-Dichlorophenol	7.30E-02	0.07300	73.00
✓ 2,4-Dimethylphenol	4.90E-01	0.49000	490.00
✓ 2,4-Dinitrophenol	4.90E-02	0.04900	49.00
✓ 2,4-Dinitrotoluene	1.30E-03	0.00130	1.30
✓ 2,6-Dinitrotoluene	1.30E-03	0.00130	1.30
✓ 2-Chloronaphthalene	2.00E+00	2.00000	2000.00
✓ 2-Chlorophenol	1.20E-01	0.12000	120.00
✓ 2-Methylnaphthalene	9.80E-02	0.09800	98.00
✓ 2-Nitroaniline	7.30E-03	0.00730	7.30
✓ 2-Nitrophenol	4.90E-02	0.04900	49.00
✓ 3,3'-Dichlorobenzidine	2.00E-03	0.00200	2.00
✓ 3-Nitroaniline	7.30E-03	0.00730	7.30
✓ 4,6-Dinitro-2-methylphenol	2.40E-03	0.00240	2.40
✓ 4-Bromophenyl phenyl ether	6.10E-05	0.00006	0.06
✓ 4-Chloro-3-methylphenol	1.20E-01	0.12000	120.00
✓ 4-Chloroaniline	4.60E-03	0.00460	4.60
✓ 4-Chlorophenyl phenyl ether	6.10E-05	0.00006	0.06
✓ Cresol, p- (4-methylphenol)	1.20E-01	0.12000	120.00
✓ 4-Nitroaniline	4.60E-02	0.04600	46.00
✓ 4-Nitrophenol	4.90E-02	0.04900	49.00
✓ Acenaphthene	1.50E+00	1.50000	1500.00
✓ Acenaphthylene	1.50E+00	1.50000	1500.00
by mt ✓ Aniline	1.60E-01	0.16000	160.00
✓ Anthracene	7.30E+00	7.30000	7300.00

ATTACHMENT 9

COMPARISON OF LAB DATA ANALYSIS

TABLE 1

RESULTS AND RELATIVE PERCENT DIFFERENCES (RPD) OF EPA AND PRP LAB SAMPLES
FIELD INVESTIGATION SUMMARY REPORT, MAY 2012
R&H OIL/TROPICANA ENERGY SUPERFUND SITE

WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-14	INORGANICS	Aluminum	0.2	U	0.2	0.07	J	0.022	0.5	mg/L	NA
MW-14	INORGANICS	Arsenic	0.374		0.001	0.33		0.0033	0.01	mg/L	13
MW-14	INORGANICS	Barium	0.443		0.01	0.44		0.0022	0.02	mg/L	1
MW-14	INORGANICS	Chromium	0.00056	LJ	0.002	0.0016	U	0.0016	0.01	mg/L	NA
MW-14	INORGANICS	Cobalt	0.0077		0.001	0.0078	J	0.00063	0.01	mg/L	1
MW-14	INORGANICS	Copper	0.00064	LJ	0.002	0.0017	J B	0.0015	0.01	mg/L	91
MW-14	INORGANICS	Lead	0.0088		0.001	0.0077	J	0.0029	0.01	mg/L	13
MW-14	INORGANICS	Manganese	1.13		0.002	1		0.00084	0.01	mg/L	12
MW-14	INORGANICS	Mercury	0.000044	LJ	0.0002	2.6E-05	U	0.000026	0.0002	mg/L	NA
MW-14	INORGANICS	Nickel	0.0072		0.001	0.0061	J	0.0018	0.01	mg/L	17
MW-14	INORGANICS	Selenium	0.0174		0.005	0.0042	U	0.0042	0.04	mg/L	NA
MW-14	INORGANICS	Thallium	0.001	U	0.001	0.0078	U	0.0078	0.03	mg/L	NA
MW-14	INORGANICS	Vanadium	0.005	U	0.005	0.0017	U ^	0.0017	0.01	mg/L	NA
MW-14	INORGANICS	Zinc	0.0024		0.002	0.0052	J B	0.0022	0.03	mg/L	74
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	83		50	58	J	3.5	74	(µg/L)	36
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene	1	U	1	4	U	4	50	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene	1	U	1	3	U	3	50	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	1	U	1	3	U	2.5	50	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene	1	U	1	4	U	4	99	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene	1	U	1	4	U	4	74	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	1	U	1	4	U	3.5	99	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,i)perylene	1	U	1	4	U	4	120	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene	1	U	1	5	U	4.5	99	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	1	U	1	4	U	4	74	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene	1	U	1	4	U	4	120	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene	1	U	1	4	U	3.5	120	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	0.49	LJ	1	4	U	3.5	74	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	1	U	1	4	U	3.5	99	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	1	U	1	3	U	3	74	(µg/L)	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	1	U	1	5	U	5.4	99	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	50	U	50	12	U	12	99	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	50	U	50	9	U	8.9	99	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	50	U	50	7	U	7.4	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	620		250	640		15	120	(µg/L)	3
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	100	U	100	19	U	19	250	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	50	U	50	6	U	6.4	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	50	U	50	4	U	4	50	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	50	U	50	4	U	4	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	50	U	50	6	U	6.4	99	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	100	U	100	9	U	9.4	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	50	U	50	11	U	11	50	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	50	U	50	9	U	8.9	500	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	100	U	100	8	U	7.9	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	100	U	100	41	U	41	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	50	U	50	5	U	5	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	50	U	50	8	U	8.4	50	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	50	U	50	10	U	10	50	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	50	U	50	5	U	5	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	100	U	100	12	U	12	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	100	U	100	28	U	28	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	100	U	100	4	U	4	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	50	U	50	6	U	6.4	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	50	U	50	7	U	7.4	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	50	U	50	18	U	18	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	50	U	50	6	U	5.9	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	50	U	50	4	U	4	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	50	U	50	74	U	74	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	50	U	50	4	U	3.5	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	50	U	50	5	U	5.4	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	50	U	50	8	U	7.9	250	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	50	U	50	5	U	5.4	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	50	U	50	6	U	6.4	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	50	U	50	5	U	5	99	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	50	U	50	5	U	5.4	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	50	U	50	5	U	5.4	74	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	50	U	50	5	U	5	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	2	U	2	30	U	30	120	(µg/L)	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	1200		250	24	J	2	74	(µg/L)	192
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	U	13	36	U	36	200	(µg/L)	NA

TABLE 1

**RESULTS AND RELATIVE PERCENT DIFFERENCES (RPD) OF EPA AND PRP LAB SAMPLES
FIELD INVESTIGATION SUMMARY REPORT, MAY 2012
R&H OIL/TROPICANA ENERGY SUPERFUND SITE**

WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	U	13	30	U	30	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	U	13	44	U	44	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13	U	13	56	U	56	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	U	13	22	U	22	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	UJv	13	38	U	38	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	U	13	42	U	42	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	U	13	58	U	58	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	U	13	62	U	62	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	1000	J	13	1100		28	200	(µg/L)	10
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13	U	13	160	U *	160	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3	U	1.3	36	U	36	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	U	13	20	U	20	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	U	13	28	U	28	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	U	13	32	U	32	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	400		13	440		20	200	(µg/L)	10
MW-14	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	U	13	26	U	26	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	U	13	44	U	44	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	U	13	22	U	22	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13	U	13	26	U	26	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	U	130	150	U	150	400	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13	U	13	26	U	26	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	190		130	70	U	70	400	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	U	13	28	U	28	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	U	130	90	U	90	400	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Acetone	130	U	130	200	U	200	1000	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Benzene	26000		1300	31000		80	1000	(µg/L)	18
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	U	13	38	U	38	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	U	13	32	U	32	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromoform	13	U	13	38	U	38	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13	UJv	13	50	U	50	400	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13	U	13	48	U	48	400	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	U	13	30	U	30	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13	U	13	24	U	24	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13	U	13	16	U	16	400	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	U	13	26	U	26	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	U	13	36	U *	36	400	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	UJv	13	12	U	12	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	U	13	36	U	36	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13	U	13	30	U	30	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13	U	13	100	U	100	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	U	13	24	U *	24	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	1100	LJ	1300	1400		22	200	(µg/L)	24
MW-14	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13	U	13	34	U	34	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	75		13	81	J	36	200	(µg/L)	8
MW-14	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	U	13	24	U	24	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	U	13	30	U	30	1000	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Naphthalene	240		13	350		64	200	(µg/L)	37
MW-14	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	U	13	32	U	32	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	94		13	110	J	30	200	(µg/L)	16
MW-14	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	U	13	20	U	20	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	U	13	24	U	24	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Styrene	13	U	13	100	J	14	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	U	13	16	U	16	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13	U	13	26	U	26	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Toluene	24000		1300	28000		150	1000	(µg/L)	15
MW-14	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13	UJv	13	18	U	18	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	U	13	42	U	42	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13	U	13	36	U	36	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13	U	13	16	U	16	200	(µg/L)	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13	UJv	13	22	U	22	400	(µg/L)	NA
MW-16	INORGANICS	Aluminum	0.2	U	0.2	0.06	J	0.022	0.5	(µg/L)	NA
MW-16	INORGANICS	Arsenic	0.176		0.001	0.15		0.0033	0.01	(µg/L)	16
MW-16	INORGANICS	Barium	0.341		0.01	0.33		0.0022	0.02	(µg/L)	3
MW-16	INORGANICS	Chromium	0.0005	LJ	0.002	0.0016	U	0.0016	0.01	(µg/L)	NA
MW-16	INORGANICS	Cobalt	0.0012		0.001	0.0009	J	0.00063	0.01	(µg/L)	29
MW-16	INORGANICS	Copper	0.002	U	0.002	0.0015	U	0.0015	0.01	(µg/L)	NA
MW-16	INORGANICS	Lead	0.001	U	0.001	0.0029	U	0.0029	0.01	(µg/L)	NA
MW-16	INORGANICS	Manganese	1.14		0.002	1		0.00084	0.01	(µg/L)	13
MW-16	INORGANICS	Mercury	0.000054	LJ	0.0002	2.6E-05	U	0.000026	0.0002	(µg/L)	NA

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WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-16	INORGANICS	Nickel	0.0031		0.001	0.0023	J		0.0018	0.01 (µg/L)	30
MW-16	INORGANICS	Selenium	0.0094		0.005	0.0042	U		0.0042	0.04 (µg/L)	NA
MW-16	INORGANICS	Thallium	0.001	U	0.001	0.0078	U		0.0078	0.03 (µg/L)	NA
MW-16	INORGANICS	Vanadium	0.005	U	0.005	0.0017	U ^		0.0017	0.01 (µg/L)	NA
MW-16	INORGANICS	Zinc	0.0013	LJ	0.002	0.0037	J B		0.0022	0.03 (µg/L)	96
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	2.7		2	3			0.069	1.5 (µg/L)	0
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene	2	U	2	0.079	U		0.079	0.99 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene	2	U	2	0.059	U		0.059	0.99 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	2	U	2	0.05	U		0.05	0.99 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene	2	U	2	0.079	U		0.079	2 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene	2	U	2	0.079	U		0.079	1.5 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	2	U	2	0.069	U		0.069	2 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,i)perylene	2	U	2	0.079	U		0.079	2.5 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene	2	U	2	0.089	U		0.089	2 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	2	U	2	0.079	U		0.079	1.5 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene	2	U	2	0.079	U		0.079	2.5 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene	2	U	2	0.069	U		0.069	2.5 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	2	U	2	0.069	U		0.069	1.5 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	2	U	2	0.069	U		0.069	2 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	2	U	2	0.059	U		0.059	1.5 (µg/L)	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	2	U	2	0.11	U		0.11	2 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	100	U	100	0.25	U		0.25	2 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	100	U	100	0.18	U		0.18	2 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	100	U	100	0.15	U		0.15	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	100	U	100	0.31	U		0.31	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	200	U	200	0.39	U		0.39	5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	100	U	100	0.13	U		0.13	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	100	U	100	0.079	U		0.079	0.99 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	100	U	100	0.079	U		0.079	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	100	U	100	0.13	U		0.13	2 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	200	U	200	0.19	U		0.19	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	100	U	100	0.22	U		0.22	0.99 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	100	U	100	0.18	U		0.18	9.9 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	200	U	200	0.16	U		0.16	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	200	U	200	1	U		0.82	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	100	U	100	0.099	U		0.099	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	100	U	100	0.17	U		0.17	0.99 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	100	U	100	0.21	U		0.21	0.99 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	100	U	100	0.099	U		0.099	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	200	U	200	0.25	U		0.25	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	200	U	200	1	U		0.55	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	200	U	200	0.079	U		0.079	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	100	U	100	0.13	U		0.13	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	100	U	100	0.15	U		0.15	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	100	U	100	0.37	U		0.37	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	100	U	100	0.12	U		0.12	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	100	U	100	0.079	U		0.079	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	100	U	100	2	U		1.5	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	100	U	100	0.069	U		0.069	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	100	U	100	0.11	U		0.11	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	100	U	100	0.16	U		0.16	5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	100	U	100	0.11	U		0.11	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	100	U	100	0.13	U		0.13	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	100	U	100	0.099	U		0.099	2 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	100	U	100	0.11	U		0.11	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	100	U	100	0.11	U		0.11	1.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	100	U	100	0.099	U		0.099	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	4	U	4	1	U		0.6	2.5 (µg/L)	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	100	U	100	0.04	U		0.04	1.5 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	U	13	0.18	U		0.18	1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	U	13	0.15	U		0.15	1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	U	13	0.22	U		0.22	1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13	U	13	0.28	U		0.28	1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	U	13	0.11	U		0.11	1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	U	13	0.19	U		0.19	1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	U	13	0.21	U		0.21	1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	U	13	0.29	U		0.29	1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	U	13	0.31	U		0.31	1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	3.6	LJ	13	2			0.14	1 (µg/L)	53

TABLE 1

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WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13	U	13	1	U	0.81		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3	U	1.3	0.18	U	0.18		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	U	13	0.1	U	0.1		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	U	13	0.14	U	0.14		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	U	13	0.16	U	0.16		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	13	U	13	1		0.1		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	U	13	0.13	U	0.13		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	U	13	0.22	U	0.22		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	U	13	0.11	U	0.11		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13	U	13	0.13	U	0.13		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	U	130	1	U	0.76		2 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13	U	13	0.13	U	0.13		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130	U	130	0.35	U	0.35		2 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	U	13	0.14	U	0.14		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	U	130	0.45	U	0.45		2 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Acetone	130	U	130	1	U	0.99		5 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Benzene	1800		130	2100		8	100	(µg/L)	15
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	U	13	0.19	U	0.19		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	U	13	0.16	U	0.16		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromoforn	13	U	13	0.19	U	0.19		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13	UJv	13	0.25	U	0.25		2 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13	U	13	0.24	U	0.24		2 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	U	13	0.15	U	0.15		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13	U	13	0.12	U	0.12		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13	U	13	0.08	U	0.08		2 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	U	13	3		0.13		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	U	13	0.18	U	0.18		2 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	U	13	0.06	U	0.06		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	U	13	0.18	U	0.18		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13	U	13	0.15	U	0.15		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13	U	13	1	U	0.52		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	U	13	0.12	U *	0.12		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	2.9	LJ	13	2		0.11		1 (µg/L)	23
MW-16	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13	U	13	0.17	U	0.17		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	14		13	22		0.18		1 (µg/L)	44
MW-16	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	U	13	1	J	0.12		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	U	13	0.15	U	0.15		5 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Naphthalene	17		13	18		0.32		1 (µg/L)	6
MW-16	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	U	13	2		0.16		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	17		13	24		0.15		1 (µg/L)	34
MW-16	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	U	13	0.36	J	0.1		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	U	13	2		0.12		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Styrene	13	U	13	0.078	J	0.07		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	U	13	0.42	J	0.08		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13	U	13	0.13	U	0.13		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Toluene	13	U	13	5		0.15		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13	U	13	0.09	U	0.09		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	U	13	0.21	U	0.21		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13	U	13	0.18	U	0.18		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13	U	13	0.08	U	0.08		1 (µg/L)	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13	UJ	13	0.11	U	0.11		2 (µg/L)	NA
MW-17	INORGANICS	Aluminum	0.2	U	0.2	0.059	J	0.022		0.5 (µg/L)	NA
MW-17	INORGANICS	Arsenic	0.0271		0.001	0.026		0.0033	0.01	(µg/L)	4
MW-17	INORGANICS	Barium	0.114		0.01	0.12		0.0022	0.02	(µg/L)	5
MW-17	INORGANICS	Chromium	0.002	U	0.002	0.0016	U	0.0016	0.01	(µg/L)	NA
MW-17	INORGANICS	Cobalt	0.0013		0.001	0.0013	J	0.00063	0.01	(µg/L)	0
MW-17	INORGANICS	Copper	0.002	U	0.002	0.0015	U	0.0015	0.01	(µg/L)	NA
MW-17	INORGANICS	Lead	0.00027	LJ	0.001	0.0029	U	0.0029	0.01	(µg/L)	NA
MW-17	INORGANICS	Manganese	0.496		0.001	1		0.00084	0.01	(µg/L)	1
MW-17	INORGANICS	Mercury	0.0001	LJ	0.0002	2.6E-05	U	0.000026	0.0002	(µg/L)	NA
MW-17	INORGANICS	Nickel	0.0015		0.001	0.0018	U	0.0018	0.01	(µg/L)	NA
MW-17	INORGANICS	Selenium	0.0012	LJ	0.005	0.0042	U	0.0042	0.04	(µg/L)	NA
MW-17	INORGANICS	Thallium	0.001	U	0.001	0.0078	U	0.0078	0.03	(µg/L)	NA
MW-17	INORGANICS	Vanadium	0.005	U	0.005	0.0017	U ^	0.0017	0.01	(µg/L)	NA
MW-17	INORGANICS	Zinc	0.0008	LJ	0.002	0.0028	J B	0.0022	0.03	(µg/L)	111
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	18		5	22		0.7	15	(µg/L)	20
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene	0.23		0.1	1	U	0.8	10	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene	0.1	U	0.1	1	U	0.6	10	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	0.1	U	0.1	1	U	0.5	10	(µg/L)	NA

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WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene	0.1	U	0.1	1	U	0.8	20	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene	0.1	U	0.1	1	U	0.8	15	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	0.1	U	0.1	1	U	0.7	20	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,i)perylene	0.1	U	0.1	1	U	0.8	25	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene	0.1	U	0.1	1	U	0.9	20	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	0.1	U	0.1	1	U	0.8	15	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene	0.1	U	0.1	1	U	0.8	25	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene	0.1	U	0.1	1	U	0.7	25	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	0.33		0.1	1	U	0.7	15	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	0.1	U	0.1	1	U	0.7	20	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	0.13		0.1	1	U	0.6	15	(µg/L)	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	0.1	U	0.1	1	U	1.1	20	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	5	U	5	3	U	2.5	20	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	5	U	5	2	U	1.8	20	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	5	U	5	2	U	1.5	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	5	U	5	3	U	3.1	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	10	U	10	4	U	3.9	50	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	5	U	5	1	U	1.3	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	5	U	5	1	U	0.8	10	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	5	U	5	1	U	0.8	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	5	U	5	1	U	1.3	20	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	10	U	10	2	U	1.9	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	5	U	5	2	U	2.2	10	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	5	U	5	2	U	1.8	100	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	10	U	10	2	U	1.6	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	10	U	10	8	U	8.3	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	5	U	5	1	U	1	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	5	U	5	2	U	1.7	10	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	5	U	5	2	U	2.1	10	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	5	U	5	1	U	1	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	10	U	10	3	U	2.5	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	10	U	10	6	U	5.6	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	10	U	10	1	U	0.8	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	5	U	5	1	U	1.3	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	5	U	5	2	U	1.5	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	2	LJ	5	4	U	3.7	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	5	U	5	1	U	1.2	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	5	U	5	1	U	0.8	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	5	U	5	15	U	15	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	5	U	5	1	U	0.7	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	5	U	5	1	U	1.1	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	5	U	5	2	U	1.6	50	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	5	U	5	1	U	1.1	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	5	U	5	1	U	1.3	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	5	U	5	1	U	1	20	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	5	U	5	1	U	1.1	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	5	U	5	1	U	1.1	15	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	5	U	5	1	U	1	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	0.2	U	0.2	6	U	6.1	25	(µg/L)	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	7.2		5	3	J	0.4	15	(µg/L)	97
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	U	13	9	U	9	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	U	13	8	U	7.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	U	13	11	U	11	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13	U	13	14	U	14	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	U	13	6	U	5.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	U	13	10	U	9.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	U	13	11	U	11	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	U	13	15	U	15	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	U	13	16	U	16	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	240		13	290		7	50	(µg/L)	19
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	UJV	0.05	41	U *	41	50	(µg/L)	200
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	U	0.05	9	U	9	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	U	13	5	U	5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	U	13	7	U	7	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	U	13	8	U	8	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	84		13	98		5	50	(µg/L)	15
MW-17	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	U	13	7	U	6.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	U	13	11	U	11	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	U	13	6	U	5.5	50	(µg/L)	NA

TABLE 1

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WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-17	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13	U	13	7	U	6.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	U	130	38	U	38	100	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13	U	13	7	U	6.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130	U	130	18	U	18	100	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	U	13	7	U	7	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	U	130	23	U	23	100	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Acetone	130	U	130	50	U	50	250	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Benzene	2500		130	2500		16	200	(µg/L)	0
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	U	13	10	U	9.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	U	13	8	U	8	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromoform	13	U	13	10	U	9.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13	UJv	13	13	U	13	100	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13	U	13	12	U	12	100	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	U	13	8	U	7.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13	U	13	6	U	6	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13	U	13	4	U	4	100	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	U	13	17	J	6.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	U	13	9	U *	9	100	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	U	13	3	U	3	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	U	13	9	U	9	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13	U	13	8	U	7.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13	U	13	26	U	26	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	U	13	6	U *	6	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	320		13	340		5.5	50	(µg/L)	6
MW-17	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13	U	13	9	U	8.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	16		13	22	J	9	50	(µg/L)	32
MW-17	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	U	13	6	U	6	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	U	13	8	U	7.5	250	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Naphthalene	76		13	150		16	50	(µg/L)	66
MW-17	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	U	13	8	U	8	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	27		13	41	J	7.5	50	(µg/L)	41
MW-17	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	U	13	5	U	5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	U	13	6	U	6	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Styrene	13	U	13	4	U	3.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	U	13	4	U	4	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13	U	13	7	U	6.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Toluene	13	U	13	10	J	7.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13	U	13	5	U	4.5	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	U	13	11	U	11	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13	U	13	9	U	9	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13	U	13	4	U	4	50	(µg/L)	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13	UJ	13	6	U	5.5	100	(µg/L)	NA
MW-18	INORGANICS	Aluminum	0.2	U	0.2	0.041	J	0.022	0.5	(µg/L)	NA
MW-18	INORGANICS	Arsenic	0.148		0.001	0.15		0.0033	0.01	(µg/L)	1
MW-18	INORGANICS	Barium	0.381		0.01	0.4		0.0022	0.02	(µg/L)	5
MW-18	INORGANICS	Chromium	0.00055	LJ	0.002	0.0016	U	0.0016	0.01	(µg/L)	NA
MW-18	INORGANICS	Cobalt	0.0028		0.001	0.0029	J	0.00063	0.01	(µg/L)	4
MW-18	INORGANICS	Copper	0.0014	LJ	0.002	0.0024	J B	0.0015	0.01	(µg/L)	53
MW-18	INORGANICS	Lead	0.005		0.001	0.0033	J	0.0029	0.01	(µg/L)	41
MW-18	INORGANICS	Manganese	0.93		0.001	1		0.00084	0.01	(µg/L)	0
MW-18	INORGANICS	Mercury	0.000036	LJ	0.0002	2.6E-05	U	0.000026	0.0002	(µg/L)	NA
MW-18	INORGANICS	Nickel	0.0051		0.001	0.0047	J	0.0018	0.01	(µg/L)	8
MW-18	INORGANICS	Selenium	0.0128		0.005	0.0042	U	0.0042	0.04	(µg/L)	NA
MW-18	INORGANICS	Thallium	0.001	U	0.001	0.0078	U	0.0078	0.03	(µg/L)	NA
MW-18	INORGANICS	Vanadium	0.005	U	0.005	0.0017	U ^	0.0017	0.01	(µg/L)	NA
MW-18	INORGANICS	Zinc	0.0015	LJ	0.002	0.0034	J B	0.0022	0.03	(µg/L)	78
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	51		50	64		0.69	15	(µg/L)	23
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene	1	U	1	1	U	0.79	9.9	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene	1	U	1	1	U	0.59	9.9	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	1	U	1	0.49	U	0.49	9.9	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene	1	U	1	1	U	0.79	20	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene	1	U	1	1	U	0.79	15	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	1	U	1	1	U	0.69	20	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,i)perylene	1	U	1	1	U	0.79	25	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene	1	U	1	1	U	0.89	20	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	1	U	1	1	U	0.79	15	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene	1	U	1	1	U	0.79	25	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene	1	U	1	1	U	0.69	25	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	1	U	1	1	U	0.69	15	(µg/L)	NA

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WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	1	U	1	1	U	0.69	20	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	1	U	1	1	U	0.59	15	(µg/L)	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	1	U	1	1	U	1.1	20	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	50	U	50	3	U	2.5	20	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	50	U	50	2	U	1.8	20	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	50	U	50	2	U	1.5	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	500		100	660		15	120	(µg/L)	28
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	100	U	100	4	U	3.8	49	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	50	U	50	1	U	1.3	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	50	U	50	1	U	0.79	9.9	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	50	U	50	1	U	0.79	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	50	U	50	1	U	1.3	20	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	100	U	100	2	U	1.9	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	50	U	50	2	U	2.2	9.9	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	50	U	50	2	U	1.8	99	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	100	U	100	2	U	1.6	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	100	U	100	8	U	8.2	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	50	U	50	1	U	0.99	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	50	U	50	2	U	1.7	9.9	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	50	U	50	2	U	2.1	9.9	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	50	U	50	1	U	0.99	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	100	U	100	3	U	2.5	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	100	U	100	6	U	5.5	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	100	U	100	1	U	0.79	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	50	U	50	1	U	1.3	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	50	U	50	2	U	1.5	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	50	U	50	4	U	3.6	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	50	U	50	1	U	1.2	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	50	U	50	1	U	0.79	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	50	U	50	15	U	15	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	50	U	50	1	U	0.69	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	50	U	50	1	U	1.1	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	50	U	50	2	U	1.6	49	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	50	U	50	1	U	1.1	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	50	U	50	1	U	1.3	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	50	U	50	1	U	0.99	20	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	50	U	50	1	U	1.1	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	50	U	50	1	U	1.1	15	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	50	U	50	1	U	0.99	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	2	U	2	6	U	6	25	(µg/L)	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	92		50	31		0.39	15	(µg/L)	99
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	U	13	36	U	36	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	U	13	30	U	30	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	U	13	44	U	44	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13	U	13	56	U	56	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	U	13	22	U	22	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	U	13	38	U	38	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	U	13	42	U	42	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	U	13	58	U	58	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	U	13	62	U	62	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	420		13	480		28	200	(µg/L)	13
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13	U	13	160	U	160	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	13	U	13	36	U	36	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	U	13	20	U	20	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	U	13	28	U	28	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	U	13	32	U	32	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	180		13	190	J	20	200	(µg/L)	5
MW-18	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	U	13	26	U	26	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	U	13	44	U	44	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	U	13	22	U	22	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13	U	13	26	U	26	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	U	130	150	U	150	400	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13	U	13	26	U	26	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130	U	130	70	U	70	400	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	U	13	28	U	28	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	U	130	90	U	90	400	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Acetone	130	U	130	200	U	200	1000	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Benzene	21000		630	22000		400	5000	(µg/L)	5
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	U	13	38	U	38	200	(µg/L)	NA

TABLE 1

**RESULTS AND RELATIVE PERCENT DIFFERENCES (RPD) OF EPA AND PRP LAB SAMPLES
FIELD INVESTIGATION SUMMARY REPORT, MAY 2012
R&H OIL/TROPICANA ENERGY SUPERFUND SITE**

WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	U	13	32	U	32	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromoform	13	U	13	38	U	38	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13	UJv	13	50	U	50	400	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13	U	13	48	U	48	400	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	U	13	30	U	30	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13	U	13	24	U	24	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13	U	13	16	U	16	400	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	U	13	26	U	26	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	U	13	36	U	36	400	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	U	13	12	U	12	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	U	13	36	U	36	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13	U	13	30	U	30	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13	U	13	100	U	100	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	U	13	24	U *	24	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	850		630	960		22	200	(µg/L)	12
MW-18	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13	U	13	34	U	34	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	47		13	56	J	36	200	(µg/L)	18
MW-18	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	U	13	24	U	24	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	U	13	30	U	30	1000	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Naphthalene	130		13	160	J	64	200	(µg/L)	21
MW-18	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	U	13	32	U	32	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	44		13	52	J	30	200	(µg/L)	17
MW-18	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	U	13	20	U	20	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	U	13	24	U	24	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Styrene	13	U	13	19	J	14	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	U	13	16	U	16	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13	U	13	26	U	26	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Toluene	3900		630	4500		30	200	(µg/L)	14
MW-18	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13	U	13	18	U	18	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	U	13	42	U	42	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13	U	13	36	U	36	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13	U	13	16	U	16	200	(µg/L)	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13	UJ	13	22	U	22	400	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	U	13	9	U	9	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	U	13	8	U	7.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	U	13	11	U	11	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13	U	13	14	U	14	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	U	13	6	U	5.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	U	13	10	U	9.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	U	13	11	U	11	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	U	13	15	U	15	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	U	13	16	U	16	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	250		13	300		7	50	(µg/L)	18
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13	U	13	41	U *	41	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	13	U	13	9	U	9	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	U	13	5	U	5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	U	13	7	U	7	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	U	13	8	U	8	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	72		13	86		5	50	(µg/L)	18
MW-19	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	U	13	7	U	6.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	U	13	11	U	11	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	U	13	6	U	5.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13	U	13	7	U	6.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	U	130	38	U	38	100	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13	U	13	7	U	6.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130	U	130	18	U	18	100	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	U	13	7	U	7	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	U	130	23	U	23	100	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Acetone	130	U	130	50	U	50	250	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Benzene	3900		250	4400		40	500	(µg/L)	12
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	U	13	10	U	9.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	U	13	8	U	8	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromoform	13	U	13	10	U	9.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13	UJv	13	13	U	13	100	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13	U	13	12	U	12	100	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	U	13	8	U	7.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13	U	13	6	U	6	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13	U	13	4	U	4	100	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	U	13	13	J	6.5	50	(µg/L)	NA

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WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-19	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	U	13	9	U *	9	100	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	U	13	3	U	3	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	U	13	9	U	9	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13	U	13	8	U	7.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13	U	13	26	U	26	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	U	13	6	U *	6	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	410		13	510		5.5	50	(µg/L)	22
MW-19	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13	U	13	9	U	8.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	21		13	30	J	9	50	(µg/L)	35
MW-19	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	U	13	130		6	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	U	13	8	U	7.5	250	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Naphthalene	130		13	180		16	50	(µg/L)	32
MW-19	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	U	13	8	U	8	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	33		13	48	J	7.5	50	(µg/L)	37
MW-19	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	U	13	5	U	5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	U	13	6	U	6	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Styrene	13	U	13	4	U	3.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	U	13	4	U	4	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13	U	13	7	U	6.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Toluene	27		13	26	J	7.5	50	(µg/L)	4
MW-19	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13	U	13	5	U	4.5	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	U	13	11	U	11	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13	U	13	9	U	9	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13	U	13	4	U	4	50	(µg/L)	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13	UJ	13	6	U	5.5	100	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5	U	0.5	0.18	U	0.18	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5	U	0.5	0.15	U	0.15	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	UJv	0.5	0.22	U	0.22	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	U	0.5	0.28	U	0.28	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	U	0.5	0.11	U	0.11	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5	U	0.5	0.19	U	0.19	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5	U	0.5	0.21	U	0.21	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	U	0.5	0.29	U	0.29	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5	U	0.5	0.31	U	0.31	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5	U	0.5	0.14	U	0.14	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	UJv	0.05	1	U	0.81	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	U	0.05	0.18	U	0.18	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	U	0.5	0.1	U	0.1	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5	U	0.5	0.14	U	0.14	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	U	0.5	0.16	U	0.16	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	U	0.5	0.1	U	0.1	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	U	0.5	0.13	U	0.13	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	U	0.5	0.22	U	0.22	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	U	0.5	0.11	U	0.11	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	U	0.5	0.13	U	0.13	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	U	5	1	U	0.76	2	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	U	0.5	0.13	U	0.13	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5	U	5	0.35	U	0.35	2	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	U	0.5	0.14	U	0.14	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	U	5	0.45	U	0.45	2	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Acetone	5	U	5	1	U	0.99	5	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	U	0.5	0.08	U	0.08	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	U	0.5	0.19	U	0.19	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	U	0.5	0.16	U	0.16	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	U	0.5	0.19	U	0.19	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	UJv	0.5	0.25	U	0.25	2	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	U	0.5	0.24	U	0.24	2	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	U	0.5	0.15	U	0.15	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	U	0.5	0.12	U	0.12	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	U	0.5	0.08	U	0.08	2	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	U	0.5	0.13	U	0.13	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	U	0.5	0.18	U	0.18	2	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5	U	0.5	0.06	U	0.06	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	U	0.5	0.18	U	0.18	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	U	0.5	0.15	U	0.15	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	U	0.5	1	U	0.52	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	U	0.5	0.12	U *	0.12	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.5	U	0.5	0.11	U	0.11	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	U	0.5	0.17	U	0.17	1	(µg/L)	NA

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WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-20	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5	U	0.5	0.18	U	0.18	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	2.4		0.5	3		0.12	1	(µg/L)	26
MW-20	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	U	0.5	0.15	U	0.15	5	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Naphthalene	1	UM	0.5	0.32	U	0.32	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	U	0.5	0.16	U	0.16	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	U	0.5	0.15	U	0.15	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	U	0.5	0.1	U	0.1	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5	U	0.5	0.12	U	0.12	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	U	0.5	0.07	U	0.07	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	U	0.5	0.08	U	0.08	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	0.5	U	0.5	0.13	U	0.13	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	U	0.5	0.15	U	0.15	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	U	0.5	0.09	U	0.09	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	U	0.5	0.21	U	0.21	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	0.5	U	0.5	0.18	U	0.18	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	U	0.5	0.08	U	0.08	1	(µg/L)	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	UJ	0.5	0.11	U	0.11	2	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5	U	0.5	0.18	U	0.18	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5	U	0.5	0.15	U	0.15	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	U	0.5	0.22	U	0.22	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	UJv	0.5	0.28	U	0.28	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	U	0.5	0.11	U	0.11	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5	U	0.5	0.19	U	0.19	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5	U	0.5	0.21	U	0.21	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	U	0.5	0.29	U	0.29	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5	U	0.5	0.31	U	0.31	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5	U	0.5	0.14	U	0.14	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	UJv	0.05	1	U	0.81	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	U	0.05	0.18	U	0.18	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	U	0.5	0.1	U	0.1	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.53		0.5	1	J	0.14	1	(µg/L)	30
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	U	0.5	0.16	U	0.16	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	U	0.5	0.1	U	0.1	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	U	0.5	0.13	U	0.13	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	U	0.5	0.22	U	0.22	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	U	0.5	0.11	U	0.11	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	U	0.5	0.13	U	0.13	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	U	5	1	U	0.76	2	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	U	0.5	0.13	U	0.13	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5	U	5	0.35	U	0.35	2	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	U	0.5	0.14	U	0.14	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	U	5	0.45	U	0.45	2	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Acetone	5	U	5	1	U	0.99	5	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	U	0.5	0.33	J	0.08	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	U	0.5	0.19	U	0.19	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	U	0.5	1		0.16	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	U	0.5	0.19	U	0.19	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	UJv	0.5	0.25	U	0.25	2	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	U	0.5	0.24	U	0.24	2	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	UJ	0.5	0.15	U	0.15	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	U	0.5	0.12	U	0.12	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	U	0.5	0.08	U	0.08	2	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	U	0.5	0.17	J	0.13	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	U	0.5	0.18	U	0.18	2	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.78		0.5	1	J	0.06	1	(µg/L)	5
MW-21	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	UJv	0.5	0.18	U	0.18	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	U	0.5	0.15	U	0.15	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	U	0.5	1	U	0.52	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	U	0.5	0.12	U *	0.12	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	5.9	J^	0.5	7		0.11	1	(µg/L)	11
MW-21	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	U	0.5	0.17	U	0.17	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	2	J^	0.5	2		0.18	1	(µg/L)	5
MW-21	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5	U	0.5	0.37	J	0.12	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	U	0.5	0.15	U	0.15	5	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Naphthalene	1.8	UM	0.5	3		0.32	1	(µg/L)	59
MW-21	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	U	0.5	0.37	J	0.16	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	U	0.5	2		0.15	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	U	0.5	0.1	U	0.1	1	(µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.27	LJ	0.5	0.26	J	0.12	1	(µg/L)	4

TABLE 1

RESULTS AND RELATIVE PERCENT DIFFERENCES (RPD) OF EPA AND PRP LAB SAMPLES
FIELD INVESTIGATION SUMMARY REPORT, MAY 2012
R&H OIL/TROPICANA ENERGY SUPERFUND SITE

WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-21	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	U	0.5	0.07	U	0.07		1 (µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	U	0.5	0.19	J	0.08		1 (µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.2	J ^a	0.5	1		0.13		1 (µg/L)	0
MW-21	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	U	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	U	0.5	0.09	U	0.09		1 (µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	UJv	0.5	0.21	U	0.21		1 (µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	2.3	J ^a	0.5	2		0.18		1 (µg/L)	0
MW-21	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	U	0.5	0.08	U	0.08		1 (µg/L)	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	UJ	0.5	0.11	U	0.11		2 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5	U	0.5	0.18	U	0.18		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5	U	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	U	0.5	0.22	U	0.22		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	U	0.5	0.28	U	0.28		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	U	0.5	0.11	U	0.11		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5	U	0.5	0.19	U	0.19		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5	U	0.5	0.21	U	0.21		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	U	0.5	0.29	U	0.29		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5	U	0.5	0.31	U	0.31		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5	U	0.5	0.14	U	0.14		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	UJv	0.05	1		0.81		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	UJv	0.05	0.18	U	0.18		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	U	0.5	0.1	U	0.1		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5	U	0.5	0.14	U	0.14		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	U	0.5	0.16	U	0.16		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	U	0.5	0.1	U	0.1		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	U	0.5	0.13	U	0.13		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	U	0.5	0.22	U	0.22		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	U	0.5	0.11	U	0.11		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	U	0.5	0.13	U	0.13		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	U	5	1	U	0.76		2 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	U	0.5	0.13	U	0.13		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5	U	5	0.35	U	0.35		2 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	U	0.5	0.14	U	0.14		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	U	5	0.45	U	0.45		2 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Acetone	5	U	5	1	U	0.99		5 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	U	0.5	0.08	U	0.08		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	U	0.5	0.19	U	0.19		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	U	0.5	0.16	U	0.16		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	U	0.5	0.19	U	0.19		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	UJv	0.5	0.25	U	0.25		2 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	U	0.5	0.24	U	0.24		2 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	UJ	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	U	0.5	0.12	U	0.12		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	U	0.5	0.08	U	0.08		2 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	U	0.5	0.13	U	0.13		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	U	0.5	0.18	U	0.18		2 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.28	LJ	0.5	0.06	U	0.06		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	U	0.5	0.18	U	0.18		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	U	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	U	0.5	1	U	0.52		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	U	0.5	0.12	U *	0.12		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.5	U	0.5	0.11	U	0.11		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	U	0.5	0.17	U	0.17		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5	U	0.5	0.18	U	0.18		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5	U	0.5	1	J	0.12		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	U	0.5	0.15	U	0.15		5 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Naphthalene	0.5	U	0.5	1	J	0.32		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	U	0.5	0.16	U	0.16		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	U	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	U	0.5	0.1	U	0.1		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5	U	0.5	0.12	U	0.12		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	U	0.5	0.07	U	0.07		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	U	0.5	0.08	U	0.08		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.3		0.5	1		0.13		1 (µg/L)	7
MW-22	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	U	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	U	0.5	0.09	U	0.09		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	U	0.5	0.21	U	0.21		1 (µg/L)	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	1.2		0.5	1		0.18		1 (µg/L)	0
MW-22	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	U	0.5	0.08	U	0.08		1 (µg/L)	NA

TABLE 1

**RESULTS AND RELATIVE PERCENT DIFFERENCES (RPD) OF EPA AND PRP LAB SAMPLES
FIELD INVESTIGATION SUMMARY REPORT, MAY 2012
R&H OIL/TROPICANA ENERGY SUPERFUND SITE**

WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-22	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	UJ	0.5	0.11	U	0.11		2 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5	U	0.5	1	U	0.9		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5	U	0.5	1	U	0.75		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	U	0.5	1	U	1.1		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	UJv	0.5	1	U	1.4		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	U	0.5	1	U	0.55		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5	U	0.5	1	U	0.95		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5	U	0.5	1	U	1.1		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	U	0.5	2	U	1.5		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5	U	0.5	2	U	1.6		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5	U	0.5	1	U	0.7		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	UJv	0.05	4	U	4.1		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	U	0.05	1	U	0.9		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	U	0.5	1	U	0.5		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5	U	0.5	1	U	0.7		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	U	0.5	1	U	0.8		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	U	0.5	1	U	0.5		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	U	0.5	1	U	0.65		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	U	0.5	1	U	1.1		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	U	0.5	1	U	0.55		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	U	0.5	1	U	0.65		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	U	5	4	U	3.8		10 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	U	0.5	1	U	0.65		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	6.1		5	2	U	1.8		10 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	U	0.5	1	U	0.7		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	U	5	2	U	2.3		10 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Acetone	5	U	5	5	U	5		25 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	U	0.5	0.41	J	0.4		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	U	0.5	1	U	0.95		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	U	0.5	1	U	0.8		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	U	0.5	1	U	0.95		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	UJv	0.5	1	U	1.3		10 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	U	0.5	1	U	1.2		10 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	UJ	0.5	1	U	0.75		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	U	0.5	1	U	0.6		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	U	0.5	0.4	U	0.4		10 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	U	0.5	1	U	0.65		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	U	0.5	1	U	0.9		10 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5	U	0.5	0.3	U	0.3		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	UJv	0.5	1	U	0.9		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	U	0.5	1	U	0.75		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	U	0.5	3	U	2.6		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	U	0.5	1	U *	0.6		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.5	U	0.5	1	U	0.55		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	U	0.5	1	U	0.85		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.58		0.5	1	U	0.9		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5	U	0.5	1	U	0.6		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	U	0.5	1	U	0.75		25 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Naphthalene	0.5	U	0.5	2	U	1.6		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	U	0.5	1	U	0.8		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	U	0.5	1	U	0.75		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	U	0.5	1	U	0.5		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5	U	0.5	1	U	0.6		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	U	0.5	0.35	U	0.35		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	U	0.5	0.4	U	0.4		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	0.5	U	0.5	1	U	0.65		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	U	0.5	1	U	0.75		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	U	0.5	0.45	U	0.45		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	UJv	0.5	1	U	1.1		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	0.5	U	0.5	1	U	0.9		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	U	0.5	0.4	U	0.4		5 (µg/L)	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	UJ	0.5	1	U	0.55		10 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5	U	0.5	0.18	U	0.18		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5	U	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	U	0.5	0.22	U	0.22		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	U	0.5	0.28	U	0.28		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	U	0.5	0.11	U	0.11		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5	U	0.5	0.19	U	0.19		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5	U	0.5	0.21	U	0.21		1 (µg/L)	NA

TABLE 1

RESULTS AND RELATIVE PERCENT DIFFERENCES (RPD) OF EPA AND PRP LAB SAMPLES
FIELD INVESTIGATION SUMMARY REPORT, MAY 2012
R&H OIL/TROPICANA ENERGY SUPERFUND SITE

WELL	ANALYTE GROUP	ANALYTE	EPA Lab Results			PRP Lab Results				Units	RPD
			Result	Qualifier	CRQL	Result	Qualifier	MDL	RL		
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	U	0.5	0.29	U	0.29		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5	U	0.5	0.31	U	0.31		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5	U	0.5	0.14	U	0.14		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	UJv	0.05	1	U	0.81		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	U	0.05	0.18	U	0.18		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	U	0.5	0.1	U	0.1		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5	U	0.5	0.14	U	0.14		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	U	0.5	0.16	U	0.16		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	U	0.5	0.1	U	0.1		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	U	0.5	0.13	U	0.13		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	U	0.5	0.22	U	0.22		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	U	0.5	0.11	U	0.11		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	U	0.5	0.13	U	0.13		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	U	5	1	U	0.76		2 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	U	0.5	0.13	U	0.13		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5	U	5	0.35	U	0.35		2 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	U	0.5	0.14	U	0.14		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	U	5	0.45	U	0.45		2 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Acetone	5	U	5	1	U	0.99		5 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	U	0.5	0.23	J	0.08		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	U	0.5	0.19	U	0.19		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	U	0.5	0.16	U	0.16		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	U	0.5	0.19	U	0.19		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	UJv	0.5	0.25	U	0.25		2 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	U	0.5	0.24	U	0.24		2 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	UJ	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	U	0.5	0.12	U	0.12		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	U	0.5	0.08	U	0.08		2 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	U	0.5	0.38	J	0.13		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	U	0.5	0.18	U	0.18		2 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5	U	0.5	0.06	U	0.06		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	U	0.5	0.18	U	0.18		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	U	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	U	0.5	1	U	0.52		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	U	0.5	0.12	U *	0.12		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.91		0.5	1		0.11		1 (µg/L)	28
MW-9	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	U	0.5	0.17	U	0.17		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5	U	0.5	0.18	U	0.18		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5	U	0.5	0.12	U	0.12		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	U	0.5	0.15	U	0.15		5 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Naphthalene	0.5	U	0.5	0.32	U	0.32		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	U	0.5	0.16	U	0.16		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	U	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	U	0.5	0.1	U	0.1		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5	U	0.5	0.12	U	0.12		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	U	0.5	0.07	U	0.07		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	U	0.5	0.08	U	0.08		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.1		0.5	1		0.13		1 (µg/L)	9
MW-9	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	U	0.5	0.15	U	0.15		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	U	0.5	0.09	U	0.09		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	U	0.5	0.21	U	0.21		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	1.1		0.5	1		0.18		1 (µg/L)	9
MW-9	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	U	0.5	0.08	U	0.08		1 (µg/L)	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	UJ	0.5	0.11	U	0.11		2 (µg/L)	NA

Note:

B = Compound was found in the blank and sample
CRQL = Contract-required quantitation limit
J = Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value
L = Reported concentration is below the CRQL
MDL = Method detection limit
mg/L = Milligrams per liter
NA = Split samples did not have detected results in both EA and PRB data.
RL = Reporting limit
RPD = Relative percent difference
U = Not detected at reported quantitation limit
µg/L = Micrograms per liter
v = Low biased. Actual concentration may be higher than the concentration reported

TABLE 2

**MEAN RELATIVE PERCENT DIFFERENCES (RPDs) OF DETECTED RESULTS
FIELD INVESTIGATION SUMMARY REPORT, MAY 2012
R&H OIL/TROPICANA ENERGY SUPERFUND SITE**

ANALYTE GROUP	ANALYTE	Mean RPD
INORGANICS	Arsenic	8
INORGANICS	Barium	3
INORGANICS	Cobalt	8
INORGANICS	Copper	72
INORGANICS	Lead	27
INORGANICS	Manganese	7
INORGANICS	Nickel	18
INORGANICS	Zinc	90
POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	20
SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	15
SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	129
VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	23
VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	30
VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	12
VOLATILE ORGANIC COMPOUNDS	Benzene	10
VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	5
VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	18
VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	24
VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	26
VOLATILE ORGANIC COMPOUNDS	Naphthalene	32
VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	29
VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	4
VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	5
VOLATILE ORGANIC COMPOUNDS	Toluene	11
VOLATILE ORGANIC COMPOUNDS	Trichloroethene	3
Note: Boldface results indicate RPD > 50%.		

ATTACHMENT 10
DATA EVALUATION SUMMARY REPORT



Data Evaluation Summary Report

**Remedial Investigation / Feasibility Study Oversight
R&H Oil / Tropicana Energy Superfund Site
San Antonio, Bexar County, Texas
EPA Identification No. TXD 057577579**

**Remedial Action Contract 2
Contract: EP-W-06-004
Task Order: 0074-RSBD-06MB**

Prepared for

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LIST OF ACRONYMS AND ABBREVIATIONS

CCV	Continuing calibration verification
CLP	Contract Laboratory Program
CRDL	Contract-required detection limit
CRQL	Contract-required quantitation limit
%D	Percent difference
DESR	Data Evaluation Summary Report
DQO	Data quality objectives
EA	EA Engineering, Science, and Technology, Inc.
EPA	U.S. Environmental Protection Agency
FS	Feasibility Study
LCS	Laboratory control sample
MD	Matrix duplicate
MDL	Method detection limit
mg/L	Milligram per liter
µg/L	Microgram per liter
PARCCS	Precision, accuracy, completeness, comparability, representativeness, and sensitivity
PBW	Pastor, Behling, & Wheeler, LLC
PRP	Potentially responsible party
QA/QC	Quality Assurance/Quality Control
RI	Remedial Investigation
RPD	Relative percent difference
SAP	Sampling and Analysis Plan
SDG	Sample delivery group
Site	R&H Oil/Tropicana Energy Superfund Site
SOP	Standard Operating Procedures
SOW	Statement of Work
SVOC	Semivolatile organic compounds
VOC	Volatile organic compounds

1. INTRODUCTION

This document presents the Data Evaluation Summary Report (DESR) prepared by EA Engineering, Science, and Technology, Inc. (EA) for the R&H Oil / Tropicana Energy Site (site), located in San Antonio, Bexar County, Texas. This DESR documents and summarizes the analytical data collected during the Remedial Investigation (RI) and Feasibility Study (FS) oversight activities in May 2012. EA produced this DESR for the U.S. Environmental Protection Agency (EPA) Region 6 as part of Task Order No. 0074-RSBD-06MB under Remedial Action Contract No. EP-W-06-004, in accordance with the Statement of Work (SOW) issued by EPA (EPA 2011).

The purpose of the field investigation is to collect sufficient data to support RI/FS oversight for the site. The media sampled in May 2012 included ground water and air. The EPA SOW (EPA 2011) and the EPA-approved Work Plan (EA 2011a) set forth the framework and requirements for this effort.

The purpose of the DESR is presented in Section 2. A data summary compiling, tabulating, and summarizing the data collected during the May 2012 RI/FS activities is provided in Section 3. The Quality Assurance/Quality Control (QA/QC) findings are presented in Section 4. Data evaluation parameters are presented in Section 5. The data quality objectives (DQOs) evaluation and conclusions are presented in Section 6. References are provided in Section 7. Supporting materials follow the text.

2. PURPOSE

The purpose of this DESR is to summarize analytical data quality and usability as related to the project-specific DQOs presented in the Sampling and Analysis Plan (SAP) (EA 2011b). The DQO process is a series of planning steps designed to ensure that the type, quantity, and quality of environmental data used in decision-making are appropriate for the intended application. The project-specific DQOs for the RI/FS oversight process were developed and presented in the SAP. The methods and techniques required to yield analytical data of acceptable quality and quantity to support DQOs are also outlined in the SAP.

The overall QA objectives are as follows:

- Attain QC requirements for analyses specified in the SAP
- Obtain data of known quality to verify the potentially responsible party's (PRP) assessment of nature and extent of contamination and human health and ecological risks.
- Document performance of the PRP's quality program, including performance of the work and any required changes to work at the site.

In order to address the goals of the study, ground water and air were sampled as outlined in the SAP. Ground water samples were analyzed for volatile organic compounds (VOCs),

semivolatile organic compounds (SVOCs), and total metals. Air samples were analyzed for VOCs.

3. DATA SUMMARY

This section presents a summary of the data collected during the field investigation. Media sampled included ground water and air. Analytical results are presented in Appendix A.

3.1 GROUND WATER

EA collected ground water samples during oversight of the May 2012 field effort. Split ground water samples were collected from MW-04, (MW-04 Duplicate), MW-20, MW-09, MW-21, and MW-22 for VOCs and EPA HAPSITE Field gas chromatography/mass spectrometry (GC/MS). MW-18 was sampled and analyzed for VOCs and SVOCs. MW-19 was sampled and analyzed for VOCs. Samples from MW-14, MW-16, and MW-17 were analyzed for VOCs, SVOCs, and total metals. The results of the ground water sample analysis and the corresponding PRP results are presented in Table A-1 in Appendix A.

3.2 AIR

EA collected soil vapor samples from locations SG-14, SG-19 (SG-19 Duplicate), SG-21, and SG-22 and a sub-slab vapor sample from SS-2. The soil vapor and sub-slab samples were analyzed for VOCs. The results are summarized in Table A-2 in Appendix A. Following collection of the air samples, EA determined there was a leak at the top of the summa canisters. The PRP was unable to recover air samples from these locations; therefore the EA split samples were not used for comparison.

4. QUALITY ASSURANCE/QUALITY CONTROL

This section describes the QA/QC findings for the analytical data provided by the supporting laboratories. A complete listing of analyses is presented in the project-specific SAP (EA 2011b). The project field samples were collected and sent to two types of laboratory facilities: (1) EPA Region 6 Laboratory and (2) EPA Contract Laboratories. The following sections present the QA/QC results of the project data by laboratory type.

According to the requirements of the project-specific SAP (EA 2011b), the responsibility for the validation and review of the data from the EPA laboratory was held by the EPA. EA reviewed the electronic deliverables from the EPA Region 6 Laboratory and determined they contained suitable data validation qualifiers and accompanying case narratives.

In preparing this DESR, the available data validation reports and case narratives were reviewed. The QC findings are summarized in the following sections and only address those issues that resulted in the qualification of data. Other minor findings that were deemed insignificant to data quality are discussed in individual reports included in the appendixes to this report.

4.1 EPA REGION 6 LABORATORY DATA

The data generated by the EPA Region 6 Laboratory were reviewed in accordance with the laboratory policy. The EPA Region 6 Laboratory performed VOC analyses by method TO-15 on air samples.

The qualifiers and definitions used for the EPA Region 6 Laboratory data are presented in Table 1 (below). The deliverables included appropriate data qualifiers and accompanying data summaries. Appendix B of this DESR contains the analytical data reports and narratives for samples collected in May 2012 from the EPA Region 6 Laboratory.

The EPA Region 6 Laboratory data did not require validation by EA as specified in the project-specific SAP (EA 2011b). The laboratory reports contained narratives with general information regarding data quality. The laboratory did not reject any data, so the data were usable as reported. The issues reported in the narratives are summarized below.

- **Report for samples collected in May 2012: Report 12SF105:**
 - Trichloroethene was qualified (B) in samples SG-22 and TB-1-Air; the concentrations in these samples were within 10 times the amount detected in the method blank.
 - Acetone was qualified as estimated (J) in sample SG-19 because the sample concentration exceeded the upper calibration limit. The concentration was slightly above the limit, and no bias is expected.
 - Samples SG-19 and SG-19-D were diluted due to matrix interference.
 - Samples SG-14 and SG-22 arrived at the laboratory with low sample volume, as indicated by their initial pressures. These samples were diluted prior to analysis.

**TABLE 1 EPA REGION 6 AND CONTRACT LABORATORY PROGRAM
LABORATORY DATA VALIDATION QUALIFIERS**

Qualifier	Definition
Data Qualifier Definitions for Organic Data Review	
ND or U	The analyte was analyzed for, but was not detected at, a level greater than or equal to the level of the adjusted Contract Required Quantitation Limit (CRQL) for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due to either the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the CRQL).
B	Blank Related - The concentration found in the sample was less than ten times the concentration found in the associated extraction, digestion, and/or analysis blank. Presence in the sample is therefore suspect.

UJ	The analyte was not detected at a level greater than or equal to the adjusted CRQL. However, the reported adjusted CRQL is approximate and may be inaccurate or imprecise.
v	Low biased. Actual concentration may be higher than the concentration reported.
^	High biased. Actual concentration may be lower than the concentration reported.
L	Reported concentration is below the CRQL.
M	Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination.
Data Qualifier Definitions for Inorganic Data Review	
ND or U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.

4.2 EPA CONTRACT LABORATORY DATA

The data generated by the EPA Contract Laboratory Program (CLP) Laboratory were reviewed in accordance with the laboratory policy. The EPA CLP Laboratory performed VOC and SVOC analyses by CLP method SOM01.2 on ground water samples.

The qualifiers and definitions used for the EPA CLP Laboratory data are presented in Table 1. The deliverables included appropriate data qualifiers and accompanying data summaries. Appendix B of this DESR contains the analytical data reports and narratives for samples collected in May 2012 from the EPA CLP Laboratory.

The EPA CLP Laboratory data did not require validation by EA as specified in the project-specific SAP (EA 2011b). The laboratory reports contained narratives with general information regarding data quality. The laboratory did not reject any data, so the data were usable as reported. The issues reported in the narratives are summarized below.

- **Report for samples collected in May 2012: SDG F5MP0:**
 - Vinyl chloride was qualified as estimated (J) in all samples due to failed percent difference (%D) criteria in the opening continuing calibration verification (CCV).
 - Carbon tetrachloride was qualified as estimated (J) in samples MW-4, MW-9, the diluted analysis of MW-19, MW-21, MW-22, and MW-4-D due to failed %D criteria in the opening CCV.
 - Methylcyclohexane and 1,2,4-trimethylbenzene were qualified estimated (J) in sample MW-14 because the concentrations exceeded the upper calibration limit.

- o-Xylene was qualified estimated (J) in sample MW-18 because the concentration exceeded the upper calibration limit.
- Bromomethane was qualified as estimated and biased low (Jv) for all samples because the raw data for the associated CCVs indicated a significant loss of sensitivity for bromomethane.
- The laboratory qualified methylene chloride results because of possible laboratory contamination. Methylene chloride results less than the CRQL should be considered undetected. The data reviewer qualified these results with a (U) flag.
- The data reviewer qualified the detected methylene chloride result in sample TB-2 as undetected (U) due to possible laboratory contamination.
- The data reviewer qualified toluene and m,p-xylene results as undetected (U) in sample MW-16 because of possible field/shipping contamination.
- The data reviewer qualified toluene as undetected (U) in sample MW-17 because of possible field/shipping contamination.
- The data reviewer qualified naphthalene results as undetected (U) in sample MW-9 because of possible field/shipping contamination.
- Naphthalene in samples MW-20, MW-21, and MW-21-D were qualified as undetected (UM) due to possible field contamination.
- Detected trichloroethene, tetrachloroethene, ethylbenzene, and isopropylbenzene results in sample MW-21 were qualified as estimated and biased high (J^) due to high surrogate recovery.
- One of the surrogates associated with sample MW-19 was recovered below 10 percent; the data reviewer recommended the results associated with this surrogate be taken from the diluted reanalysis.
- The following samples had one or more surrogate recoveries below the QC limits: MW-14, MW-4, MW-20, MW-21, MW-4-D, TB-2, and FB-1. The associated results were qualified as estimated and biased low (Jv).
- The tert-butylbenzene spectra submitted for sample MW-19 did not meet the relative intensity compound identification criteria. The data reviewer qualified the tert-butylbenzene identification as tentative for this sample.
- The data reviewer qualified the 1,2,4-trimethylbenzene identification in sample MW-21 as tentative due to questionable retention time.
- The raw data for one closing CCV showed the instrument had difficulty detecting 1,2-dibromo-3-chloropropane in the samples during the volatile SIM analysis. Instead of rejecting the non-detected results, the data reviewer recommended the 1,2-dibromo-3-chloropropane results from the full scan analysis be used for samples

MW-14, MW-16, MW-18, and MW-19. The reviewer qualified the remaining volatile SIM samples as estimated and biased low (Jv).

- 1,2-Dibromoethane was qualified as estimated and biased low in sample MW-22 due to low surrogate recovery.
- 1,2-Dibromo-3-chloropropane was qualified as estimated and biased low in sample FB-2 due to low surrogate recovery.
- The data reviewer qualified the diethylphthalate and di-n-butylphthalate results in sample MW-17 as undetected (U) due to possible laboratory contamination.

- **Report for samples collected in May 2012: SDG MF5MP0:**

- Due to laboratory blank readings, the antimony result for sample MW-18 was considered undetected and flagged (U) by the data reviewer.

5. DATA EVALUATION PARAMETERS

The data were evaluated for acceptable quality and quantity based on the critical indicator parameters, represented by precision, accuracy, representativeness, completeness, comparability, and sensitivity (PARCCS). To the extent possible, EA followed EPA's data quality assessment process (EPA 2006a; 2006b). This evaluation helps determine whether limitations should be placed on the data and to verify that the type, quality, and quantity of data that are collected are appropriate for their intended use. The PARCCS parameters were reviewed for the laboratory analytical data results and are discussed in the following sections.

A well-defined QA/QC process is integral to the generation of analytical data of known and documented quality. The QC process includes those activities required during data collection to produce data of sufficient quality to support the decisions that will be made based on the data (e.g., comparison to the PRP sample data). After environmental data are collected, QA activities focus on evaluating the quality of the data in order to determine the data usability with respect to support for remedial or enforcement decisions. Table 2 presents the acceptance criteria for definitive laboratory data for chemical analyses of investigation samples only.

5.1 DATA CATEGORIES

In order to produce data suitable for decision-making, an appropriate analytical technique must be selected. The EPA Superfund program has developed two descriptive categories of analytical techniques: (1) field-based techniques, and (2) fixed-laboratory techniques. The type of data generated depends on the qualitative and quantitative DQOs developed for a project. Regardless of how the data were analyzed, they must be of adequate quality for the decision-making process for which they were collected. For this project, both types of data were collected. Both field-based and definitive analytical data may be used to support decisions made for this project.

Rigorous analytical methods (e.g., EPA CLP methods) are used to generate analyte-specific, definitive data. The definitive quality of the data is assured by: (1) using Standard Operating Procedures (SOPs) and QC processes during data collection; (2) documented control and traceability of reference standards, calibrations, and instrument performance; and (3) acceptable performance of field and laboratory QC procedures within the defined limits established for these procedures.

TABLE 2 QUALITY ASSURANCE INDICATOR CRITERIA

Indicator Parameter	Analytical Parameter	QC Sample	Acceptance Criteria for Laboratory Analysis
Accuracy (percent recovery)	VOCs, SVOCs	MS, MSD Blanks	50 to 150 percent recovery Less than CRQL
	Metals	MS LCS Blanks	75 to 125 percent recovery 80 to 120 percent recovery Less than CRDL
Precision (RPD)	VOCs, SVOCs	MS, MSD Field duplicates and split samples	30 percent RPD 50 percent RPD
	Metals	MS, MD MS, MD Field duplicates and split samples	20 percent RPD (aqueous) 35 percent RPD (solid) 50 percent RPD
Sensitivity (quantitation limits)	All analytical tests	MS, MD, MSD Field duplicates	Not applicable
Completeness	The objective for data completeness is 90 percent.		
Representativeness and Bias	The sampling network analytical methods for this site are designed to provide data that are representative of site conditions.		
Comparability	The use of standard published sampling and analytical methods and the use of QC samples will ensure data of known quality. These data can be compared to any other data of known quality.		
NOTE:			
CRDL = Contract-required detection limit			
CRQL = Contract-required quantitation limit			
LCS = Laboratory control sample			
LCSD = Laboratory control sample duplicate			
MD = Matrix duplicate			
MS = Matrix spike			
MSD = Matrix spike duplicate			
RPD = Relative percent difference.			

The ground water and air samples collected during the sampling event were analyzed by the EPA Region 6 and CLP Laboratories.

5.2 MEASUREMENT QUALITY OBJECTIVES

Analytical results were evaluated in accordance with PARCCS parameters to document the quality of the data and to ensure that the data are of sufficient quality to meet the project objectives. Of these PARCCS parameters, precision and accuracy were evaluated quantitatively by collecting the QC check samples listed in Table 2 (above).

The sections below describe each of the PARCCS parameters and how they were assessed within this project.

5.2.1 Precision

Precision is the degree of mutual agreement between individual measurements of the same property under similar conditions. Usually, combined field and laboratory precision is evaluated by collecting and analyzing field duplicates and then calculating the variance between the samples, typically as a relative percent difference (RPD).

RPD is calculated as follows:
$$RPD = \frac{|A - B|}{(A + B)/2} \times 100\%$$

where: A = first duplicate concentration
B = second duplicate concentration

Field sampling precision is evaluated by analyzing field duplicate samples (in this case, field duplicates of split samples). Duplicate results were evaluated for compliance with acceptance criteria for precision for each analytical method. RPD evaluations are documented in the individual data validation report for each sample delivery group (SDG) which was validated for matrix spike/matrix spike duplicate and laboratory replicate pairs. A summary of the ground water and air samples collected is presented in Appendix A. The field duplicate RPD evaluations are presented in Table A-3 of Appendix A. The SAP criterion for field duplicate precision is 50 percent RPD.

Ground Water—Field duplicates were collected from samples MW-14, MW-21, and MW-4. Out of the 230 analytes that were duplicated, 226 of the results (i.e. 98 percent) met the RPD criterion. Four of the analytes exceeded the field duplicate criterion, and are listed in Table 3. Three of these instances had a detected concentration in one of the samples, but the analyte was not detected in the other sample, resulting in an elevated RPD. In one instance, the analyte was not detected in the parent or duplicate sample, and the samples have varied reporting limits, resulting in an elevated RPD. The results listed in Table 3 are therefore usable, but are considered estimated values.

Air—A field duplicate was collected from air sample SG-19. Out of the 61 analytes that were duplicated, 56 of the results (i.e., 91 percent) met the RPD criteria. Five of the analytes exceeded the field duplicate criteria, and are listed in Table 3. In two of the instances, the analyte was not detected in the parent or duplicate samples and the samples have varied reporting limits, resulting in high RPDs. In one instance, the analyte was detected in the parent but not in the field duplicate. The remaining two instances had detections in both the parent and duplicate samples. The results listed in Table 3 are considered estimated values. However, the PRP was unable to collect air samples for analysis; therefore the air results collected by EA were not used for comparison to PRP data.

TABLE 3 EPA FIELD DUPLICATES WITH RPD EXCEEDING 50 PERCENT

Sample ID	Analyte	Parent Sample			Duplicate Sample			RPD
		Result	Units	Qualifier	Result	Units	Qualifier	
MW-21	sec-Butylbenzene	0.27	µg/L	LJ	0.50	µg/L	U	59.7
MW-21	n-Propylbenzene	0.50	µg/L	U	2.5	µg/L	---	133.3
MW-14	Hexachlorobutadiene	13	µg/L	U	50	µg/L	U	117.5
MW-14	Fluorene	0.49	µg/L	LJ	1.0	µg/L	U	68.5
SG-19	Carbon disulfide	7.8	µg/m ³	U	1	µg/m ³	U	154.5
SG-19	Cyclohexane	30	µg/m ³	---	11	µg/m ³	---	92.7
SG-19	1,2-Dichloropropane	1.6	µg/m ³	U	580	µg/m ³	U	198.9
SG-19	Benzene	11	µg/m ³	---	1.9	µg/m ³	---	141.1
SG-19	Propene	1.5	µg/m ³	---	0.56	µg/m ³	U	91.3
NOTE: µg/m ³ = micrograms per cubic meter µg/L = micrograms per liter								

The criteria in the SAP specifies that 1 in 10 (10 percent) of split samples be submitted as field duplicates to the laboratory (EA 2011b). Field duplicate pairs were collected, analyzed, and evaluated for each matrix. The frequency of field duplicates submitted to the laboratory for analysis is provided in Table 4.

TABLE 4 FIELD DUPLICATE FREQUENCY

Matrix	Samples	Field Duplicates	Frequency (%)
Water	10	3	30
Air	5	1	20

5.2.2 Accuracy

Accuracy is the degree to which a measurement agrees with its true value and is expressed as percent recovery; acceptance criteria for each analytical methodology are stated in the SAP (EA 2011b). Accuracy is assessed by comparing MS, laboratory control samples (LCS), and surrogate recoveries to associated QC limits. Through the process of data validation and review, MS, LCS, and surrogate recoveries were evaluated for compliance with acceptance criteria for accuracy for each applicable analytical methodology.

MS and MSD samples were prepared and analyzed at a frequency of 5 percent. LCSs or blank spikes are also analyzed at a frequency of 5 percent. Surrogate standards, where available, are added to every sample analyzed for organic constituents. The results of the spiked samples are used to calculate the percent recovery for evaluating accuracy. The evaluations of percent recovery are documented in Appendix B.

$$\text{Percent Recovery} = \frac{S - C}{T} \times 100\%$$

where: S = measured spike sample concentration
C = sample concentration
T = true or actual concentration of the spike

The objective for accuracy of field measurements is to achieve and maintain factory specifications for the field equipment. To this end, appropriate SOPs for instrument calibration were followed and calibration results were properly documented.

5.2.3 Representativeness

Representativeness is a qualitative parameter and is defined by the degree to which data accurately and precisely represents a characteristic of a population, parameter variations at a sampling point, or a process or environmental condition. The SAP (EA 2011b) stated representativeness requirements would be satisfied by: (1) ensuring the SAP and the PRP Field Sampling Plan are followed; (2) verifying that samples are collected in accordance with the appropriate PRP SOPs listed in their SAP (PBW 2010a), or that appropriate sampling techniques are used when PRP SOPs are not available; (3) following proper analytical procedures; and (4) not exceeding required maximum holding times.

EA verified the PRP SOPs and sampling plan were generally followed with two exceptions noted:

- (1) The PRP consultant collected only unfiltered ground water samples during this sampling event, as opposed to collecting filtered and unfiltered samples. EA's split samples were also unfiltered.
- (2) Turbidity was not stabilized for three consecutive measurements prior to sample collection from MW-18.

Further information can be found in the Daily Field Reports and Field Logbook, which are included in the Field Investigation Summary Report.

Samples were analyzed using standard laboratory analytical methods. The PRP and EA split samples were analyzed within the holding time specified by the analytical methods. Minor QC issues affecting the results are identified in the laboratory case narratives.

5.2.4 Completeness

Completeness is defined as the percentage of measurements judged to be valid. The validity of sample results is determined through the data validation process. The rejected (R) sample results are considered to be incomplete. The data that are qualified as estimated (J) or estimated nondetected (UJ) are considered to be valid and usable. The completeness is calculated and reported for each method and analyte combination. The number of valid results divided by the number of possible individual analyte results, expressed as a percentage, determines the completeness of the data set.

The percent completeness was acceptable. All of the samples were acceptable, resulting in 100 percent completeness for the overall project.

5.2.5 Comparability

Comparability of the data is a qualitative parameter that expresses the confidence with which one data set may be compared to another. The SAP (EA 2011b) stated comparability is attained by achieving the QA objectives for sensitivity, accuracy, precision, completeness, and representativeness and would be measured by calculating the RPD between the PRP and EA split samples. If the calculated RPD is less than 50 percent, then the EA split samples and the corresponding PRP samples are considered to be within adequate agreement. The calculated RPDs are summarized in Table A-1. Due to significant differences in reporting limits between the EPA and PRP laboratories, RPDs were only calculated when a detected result was reported by both laboratories. The mean RPDs were then calculated for each analyte, which are summarized in Table A-4. When a result was detected in both the PRP sample and the corresponding EPA split sample, the mean RPD exceeded 50 percent in three analytes, which are summarized in Table 5.

TABLE 5 DETECTED ANALYTES EXCEEDING 50 PERCENT RPD CRITERION

ANALYTE GROUP	ANALYTE	Mean RPD
INORGANICS	Copper	72
INORGANICS	Zinc	90
SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	129

Copper and zinc exceeded the RPD criterion in instances where there were detections below the reporting limits in both the PRP and EPA split samples. Results reported close to the detection limit generally have higher variability and are qualified by the laboratory as estimated values. Therefore, these results tend to have a high RPD, although there is little difference between the two results. For example, copper was detected in MW-18 at a concentration of 0.0024 milligrams per liter (mg/L) in the PRP sample compared to the EPA split sample of 0.0014

mg/L. Although there is a small difference between the two results, the calculated RPD is 53 percent due to the variability of results below the reporting limit.

Phenol results exceeded the RPD criterion in samples MW-14, MW-17, and MW-18. In each case, the EPA split samples are greater than the PRP results. The reason for the high RPDs is uncertain; however, phenol is not a key contaminant of potential concern in this investigation. The EPA results can be considered high estimates of the actual value, and the PRP results can be considered low estimates. Both the EPA split samples and PRP samples confirm that the phenol concentrations in ground water are below the Texas Commission on Environmental Quality ground water screening level of 7,300 micrograms per liter ($\mu\text{g/L}$) identified in the PRP Quality Assurance Project Plan and the EPA tap water regional screening level of 4,500 $\mu\text{g/L}$.

5.2.6 Sensitivity

Sensitivity is the measure of the signal from an instrument that represents an actual deflection or response above instrument noise. The analytical sensitivity is measured by the method detection limit (MDL) or instrument detection limit and reported with the necessary dilution factors, preparation factors, and dry-weight factors of an individual sample as the sample quantitation limit.

Ideally the lowest of the detection limits outlined by the laboratories would be below human health screening levels; analytically achievable quantitation limits are not always low enough to meet this goal. Exceptions to the desired detection limits were identified in the PRP's Quality Assurance Project Plan (PBW 2010b).

5.3 DETECTION AND QUANTITATION LIMITS

The analytical parameters and their quantitation limits for use on this project are determined under the EPA CLP SOW(s). The contract-required detection limit (CRDL) is the minimum concentration of an analyte that can be reliably distinguished from background noise for a specific analytical method. The quantitation limit represents the lowest concentration of an analyte that can be accurately and reproducibly quantified in a sample matrix. CRQLs are contractually specified maximum quantitation limits for specific analytical methods and sample matrices, such as soil or water, and are typically several times the MDL to allow for matrix effects.

For this project, sample results were reported as estimated values if concentrations were less than CRQLs but greater than CRDLs. The CRQL for each analyte was listed as the detection limit in the laboratory's electronic data deliverable.

6. DATA QUALITY OBJECTIVES AND CONCLUSIONS

Based on the data validation findings summarized in Section 4, the EPA split sample data were either determined to be usable or qualified as estimated.

One of the goals in the field investigation was to obtain split sample results of known quality that can support the RI/FS oversight. Based upon an overall review of the results presented within this DESR, the following issues are of importance in this evaluation.

6.1 MEDIA VARIABILITY

The media of concern were ground water and air. Field duplicates of EA split samples were collected to ensure that measurement error was reduced and to increase general confidence in the analytical results.

6.2 LABORATORY PERFORMANCE PROBLEMS

In general, the CLP laboratory performance met QC limits. Refer to Section 4 for a more detailed discussion of any laboratory performance issues.

6.3 CONCLUSIONS

The split sample analytical results for this sampling event met overall project objectives for the quantity and quality of data required to support the decision-making process of this investigation. The EPA data were acceptably comparable to the PRP data.

Data without qualifiers and data qualified as estimated are usable for purposes in supporting project objectives. The EPA split sample data were validated and determined to be usable by an independent data reviewer.

7. REFERENCES

- EA Engineering, Science, and Technology, Inc. (EA). 2011a. "Remedial Investigation/Feasibility Study Oversight Work Plan for R&H Oil/Tropicana Energy Superfund Site, San Antonio, Bexar County, Texas". April.
- EA. 2011b. "Sampling and Analysis Plan, Remedial Investigation/Feasibility Study Oversight, R&H Oil/Tropicana Energy Superfund Site, San Antonio, Bexar County, Texas". June.
- Pastor, Behling, & Wheeler, LLC (PBW). 2010a. Sampling and Analysis Plan, Field Sampling Plan for the R&H Oil/Tropicana Energy Site. September.
- PBW. 2010b. Sampling and Analysis Plan, Quality Assurance Project Plan for the R&H Oil/Tropicana Energy Site. September.
- U.S. Environmental Protection Agency (EPA). 2006a. *Data Quality Assessment: A Reviewer's Guide (QA/G-9R)*. EPA/240/B-06/002. OEI. Washington, D.C. February.
- EPA. 2006b. *Data Quality Assessment: Statistical Methods for Practitioners (QA/G-9S)*. EPA/240/B-06/003. OEI. Washington, D.C. February.
- EPA. 2011. "RAC II Statement of Work for Remedial Investigation/Feasibility Study Oversight, R&H Oil/Tropicana Energy Site, San Antonio, Texas". 8 March.

Appendix A

Data Summary Tables and Relative Percent Difference Calculations

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-14	INORGANICS	Aluminum	0.2	mg/L	U	0.2	0.07	mg/L	J	0.022	0.5	NA
MW-14	INORGANICS	Arsenic	0.374	mg/L		0.001	0.33	mg/L		0.0033	0.01	13
MW-14	INORGANICS	Barium	0.443	mg/L		0.01	0.44	mg/L		0.0022	0.02	1
MW-14	INORGANICS	Chromium	0.00056	mg/L	LJ	0.002	0.0016	mg/L	U	0.0016	0.01	NA
MW-14	INORGANICS	Cobalt	0.0077	mg/L		0.001	0.0078	mg/L	J	0.00063	0.01	1
MW-14	INORGANICS	Copper	0.00064	mg/L	LJ	0.002	0.0017	mg/L	J B	0.0015	0.01	91
MW-14	INORGANICS	Lead	0.0088	mg/L		0.001	0.0077	mg/L	J	0.0029	0.01	13
MW-14	INORGANICS	Manganese	1.13	mg/L		0.002	1	mg/L		0.00084	0.01	12
MW-14	INORGANICS	Mercury	4.4E-05	mg/L	LJ	0.0002	2.6E-05	mg/L	U	2.6E-05	0.0002	NA
MW-14	INORGANICS	Nickel	0.0072	mg/L		0.001	0.0061	mg/L	J	0.0018	0.01	17
MW-14	INORGANICS	Selenium	0.0174	mg/L		0.005	0.0042	mg/L	U	0.0042	0.04	NA
MW-14	INORGANICS	Thallium	0.001	mg/L	U	0.001	0.0078	mg/L	U	0.0078	0.03	NA
MW-14	INORGANICS	Vanadium	0.005	mg/L	U	0.005	0.0017	mg/L	U ^	0.0017	0.01	NA
MW-14	INORGANICS	Zinc	0.0024	mg/L		0.002	0.0052	mg/L	J B	0.0022	0.03	74
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	83	µg/L		50	58	µg/L	J	3.5	74	36
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene	1	µg/L	U	1	4	µg/L	U	4	50	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene	1	µg/L	U	1	3	µg/L	U	3	50	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	1	µg/L	U	1	3	µg/L	U	2.5	50	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene	1	µg/L	U	1	4	µg/L	U	4	99	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene	1	µg/L	U	1	4	µg/L	U	4	74	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	1	µg/L	U	1	4	µg/L	U	3.5	99	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,i)perylene	1	µg/L	U	1	4	µg/L	U	4	120	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene	1	µg/L	U	1	5	µg/L	U	4.5	99	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	1	µg/L	U	1	4	µg/L	U	4	74	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene	1	µg/L	U	1	4	µg/L	U	4	120	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene	1	µg/L	U	1	4	µg/L	U	3.5	120	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	0.49	µg/L	LJ	1	4	µg/L	U	3.5	74	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	1	µg/L	U	1	4	µg/L	U	3.5	99	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	1	µg/L	U	1	3	µg/L	U	3	74	NA
MW-14	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	1	µg/L	U	1	5	µg/L	U	5.4	99	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	50	µg/L	U	50	12	µg/L	U	12	99	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	50	µg/L	U	50	9	µg/L	U	8.9	99	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	50	µg/L	U	50	7	µg/L	U	7.4	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	620	µg/L		250	640	µg/L		15	120	3
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	100	µg/L	U	100	19	µg/L	U	19	250	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	50	µg/L	U	50	6	µg/L	U	6.4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	50	µg/L	U	50	4	µg/L	U	4	50	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	50	µg/L	U	50	4	µg/L	U	4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	50	µg/L	U	50	6	µg/L	U	6.4	99	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	100	µg/L	U	100	9	µg/L	U	9.4	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	50	µg/L	U	50	11	µg/L	U	11	50	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	50	µg/L	U	50	9	µg/L	U	8.9	500	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	100	µg/L	U	100	8	µg/L	U	7.9	120	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	100	µg/L	U	100	41	µg/L	U	41	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	50	µg/L	U	50	5	µg/L	U	5	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	50	µg/L	U	50	8	µg/L	U	8.4	50	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	50	µg/L	U	50	10	µg/L	U	10	50	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	50	µg/L	U	50	5	µg/L	U	5	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	100	µg/L	U	100	12	µg/L	U	12	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	100	µg/L	U	100	28	µg/L	U	28	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	100	µg/L	U	100	4	µg/L	U	4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	50	µg/L	U	50	6	µg/L	U	6.4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	50	µg/L	U	50	7	µg/L	U	7.4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	50	µg/L	U	50	18	µg/L	U	18	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	50	µg/L	U	50	6	µg/L	U	5.9	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	50	µg/L	U	50	4	µg/L	U	4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	50	µg/L	U	50	74	µg/L	U	74	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	50	µg/L	U	50	4	µg/L	U	3.5	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	50	µg/L	U	50	5	µg/L	U	5.4	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	50	µg/L	U	50	8	µg/L	U	7.9	250	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	50	µg/L	U	50	5	µg/L	U	5.4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	50	µg/L	U	50	6	µg/L	U	6.4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	50	µg/L	U	50	5	µg/L	U	5	99	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	50	µg/L	U	50	5	µg/L	U	5.4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	50	µg/L	U	50	5	µg/L	U	5.4	74	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	50	µg/L	U	50	5	µg/L	U	5	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	2	µg/L	U	2	30	µg/L	U	30	120	NA
MW-14	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	1200	µg/L		250	24	µg/L	J	2	74	192
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	µg/L	U	13	36	µg/L	U	36	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	µg/L	U	13	30	µg/L	U	30	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	µg/L	U	13	44	µg/L	U	44	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13	µg/L	U	13	56	µg/L	U	56	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	µg/L	U	13	22	µg/L	U	22	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	µg/L	UJv	13	38	µg/L	U	38	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	µg/L	U	13	42	µg/L	U	42	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	µg/L	U	13	58	µg/L	U	58	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	µg/L	U	13	62	µg/L	U	62	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	1000	µg/L	J	13	1100	µg/L		28	200	10
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13	µg/L	U	13	160	µg/L	U *	160	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3	µg/L	U	1.3	36	µg/L	U	36	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	µg/L	U	13	20	µg/L	U	20	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	µg/L	U	13	28	µg/L	U	28	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	µg/L	U	13	32	µg/L	U	32	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	400	µg/L		13	440	µg/L		20	200	10
MW-14	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	µg/L	U	13	26	µg/L	U	26	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	µg/L	U	13	44	µg/L	U	44	200	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-14	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	µg/L	U	13	22	µg/L	U	22	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13	µg/L	U	13	26	µg/L	U	26	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	µg/L	U	130	150	µg/L	U	150	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13	µg/L	U	13	26	µg/L	U	26	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	190	µg/L		130	70	µg/L	U	70	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	µg/L	U	13	28	µg/L	U	28	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	µg/L	U	130	90	µg/L	U	90	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Acetone	130	µg/L	U	130	200	µg/L	U	200	1000	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Benzene	26000	µg/L		1300	31000	µg/L		80	1000	18
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	µg/L	U	13	38	µg/L	U	38	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	µg/L	U	13	32	µg/L	U	32	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromoform	13	µg/L	U	13	38	µg/L	U	38	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13	µg/L	UJv	13	50	µg/L	U	50	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13	µg/L	U	13	48	µg/L	U	48	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	µg/L	U	13	30	µg/L	U	30	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13	µg/L	U	13	24	µg/L	U	24	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13	µg/L	U	13	16	µg/L	U	16	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	µg/L	U	13	26	µg/L	U	26	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	µg/L	U	13	36	µg/L	U *	36	400	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	µg/L	UJv	13	12	µg/L	U	12	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	µg/L	U	13	36	µg/L	U	36	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13	µg/L	U	13	30	µg/L	U	30	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13	µg/L	U	13	100	µg/L	U	100	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	µg/L	U	13	24	µg/L	U *	24	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	1100	µg/L	LJ	1300	1400	µg/L		22	200	24
MW-14	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13	µg/L	U	13	34	µg/L	U	34	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	75	µg/L		13	81	µg/L	J	36	200	8
MW-14	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	µg/L	U	13	24	µg/L	U	24	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	µg/L	U	13	30	µg/L	U	30	1000	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Naphthalene	240	µg/L		13	350	µg/L		64	200	37
MW-14	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	µg/L	U	13	32	µg/L	U	32	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	94	µg/L		13	110	µg/L	J	30	200	16
MW-14	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	µg/L	U	13	20	µg/L	U	20	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	µg/L	U	13	24	µg/L	U	24	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Styrene	13	µg/L	U	13	100	µg/L	J	14	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	µg/L	U	13	16	µg/L	U	16	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13	µg/L	U	13	26	µg/L	U	26	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Toluene	24000	µg/L		1300	28000	µg/L		150	1000	15
MW-14	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13	µg/L	UJv	13	18	µg/L	U	18	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	µg/L	U	13	42	µg/L	U	42	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13	µg/L	U	13	36	µg/L	U	36	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13	µg/L	U	13	16	µg/L	U	16	200	NA
MW-14	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13	µg/L	UJv	13	22	µg/L	U	22	400	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-16	INORGANICS	Aluminum	0.2	µg/L	U	0.2	0.06	µg/L	J	0.022	0.5	NA
MW-16	INORGANICS	Arsenic	0.176	µg/L		0.001	0.15	µg/L		0.0033	0.01	16
MW-16	INORGANICS	Barium	0.341	µg/L		0.01	0.33	µg/L		0.0022	0.02	3
MW-16	INORGANICS	Chromium	0.0005	µg/L	LJ	0.002	0.0016	µg/L	U	0.0016	0.01	NA
MW-16	INORGANICS	Cobalt	0.0012	µg/L		0.001	0.0009	µg/L	J	0.00063	0.01	29
MW-16	INORGANICS	Copper	0.002	µg/L	U	0.002	0.0015	µg/L	U	0.0015	0.01	NA
MW-16	INORGANICS	Lead	0.001	µg/L	U	0.001	0.0029	µg/L	U	0.0029	0.01	NA
MW-16	INORGANICS	Manganese	1.14	µg/L		0.002	1	µg/L		0.00084	0.01	13
MW-16	INORGANICS	Mercury	5.4E-05	µg/L	LJ	0.0002	2.6E-05	µg/L	U	2.6E-05	0.0002	NA
MW-16	INORGANICS	Nickel	0.0031	µg/L		0.001	0.0023	µg/L	J	0.0018	0.01	30
MW-16	INORGANICS	Selenium	0.0094	µg/L		0.005	0.0042	µg/L	U	0.0042	0.04	NA
MW-16	INORGANICS	Thallium	0.001	µg/L	U	0.001	0.0078	µg/L	U	0.0078	0.03	NA
MW-16	INORGANICS	Vanadium	0.005	µg/L	U	0.005	0.0017	µg/L	U ^	0.0017	0.01	NA
MW-16	INORGANICS	Zinc	0.0013	µg/L	LJ	0.002	0.0037	µg/L	J B	0.0022	0.03	96
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	2.7	µg/L		2	3	µg/L		0.069	1.5	0
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene	2	µg/L	U	2	0.079	µg/L	U	0.079	0.99	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene	2	µg/L	U	2	0.059	µg/L	U	0.059	0.99	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	2	µg/L	U	2	0.05	µg/L	U	0.05	0.99	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene	2	µg/L	U	2	0.079	µg/L	U	0.079	2	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene	2	µg/L	U	2	0.079	µg/L	U	0.079	1.5	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	2	µg/L	U	2	0.069	µg/L	U	0.069	2	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,i)perylene	2	µg/L	U	2	0.079	µg/L	U	0.079	2.5	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene	2	µg/L	U	2	0.089	µg/L	U	0.089	2	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	2	µg/L	U	2	0.079	µg/L	U	0.079	1.5	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene	2	µg/L	U	2	0.079	µg/L	U	0.079	2.5	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene	2	µg/L	U	2	0.069	µg/L	U	0.069	2.5	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	2	µg/L	U	2	0.069	µg/L	U	0.069	1.5	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	2	µg/L	U	2	0.069	µg/L	U	0.069	2	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	2	µg/L	U	2	0.059	µg/L	U	0.059	1.5	NA
MW-16	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	2	µg/L	U	2	0.11	µg/L	U	0.11	2	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	100	µg/L	U	100	0.25	µg/L	U	0.25	2	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	100	µg/L	U	100	0.18	µg/L	U	0.18	2	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	100	µg/L	U	100	0.15	µg/L	U	0.15	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	100	µg/L	U	100	0.31	µg/L	U	0.31	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	200	µg/L	U	200	0.39	µg/L	U	0.39	5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	100	µg/L	U	100	0.13	µg/L	U	0.13	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	100	µg/L	U	100	0.079	µg/L	U	0.079	0.99	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	100	µg/L	U	100	0.079	µg/L	U	0.079	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	100	µg/L	U	100	0.13	µg/L	U	0.13	2	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	200	µg/L	U	200	0.19	µg/L	U	0.19	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	100	µg/L	U	100	0.22	µg/L	U	0.22	0.99	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	100	µg/L	U	100	0.18	µg/L	U	0.18	9.9	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	200	µg/L	U	200	0.16	µg/L	U	0.16	2.5	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	200	µg/L	U	200	1	µg/L	U	0.82	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	100	µg/L	U	100	0.099	µg/L	U	0.099	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	100	µg/L	U	100	0.17	µg/L	U	0.17	0.99	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	100	µg/L	U	100	0.21	µg/L	U	0.21	0.99	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	100	µg/L	U	100	0.099	µg/L	U	0.099	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	200	µg/L	U	200	0.25	µg/L	U	0.25	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	200	µg/L	U	200	1	µg/L	U	0.55	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	200	µg/L	U	200	0.079	µg/L	U	0.079	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	100	µg/L	U	100	0.13	µg/L	U	0.13	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	100	µg/L	U	100	0.15	µg/L	U	0.15	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	100	µg/L	U	100	0.37	µg/L	U	0.37	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	100	µg/L	U	100	0.12	µg/L	U	0.12	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	100	µg/L	U	100	0.079	µg/L	U	0.079	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	100	µg/L	U	100	2	µg/L	U	1.5	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	100	µg/L	U	100	0.069	µg/L	U	0.069	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	100	µg/L	U	100	0.11	µg/L	U	0.11	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	100	µg/L	U	100	0.16	µg/L	U	0.16	5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	100	µg/L	U	100	0.11	µg/L	U	0.11	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	100	µg/L	U	100	0.13	µg/L	U	0.13	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	100	µg/L	U	100	0.099	µg/L	U	0.099	2	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	100	µg/L	U	100	0.11	µg/L	U	0.11	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	100	µg/L	U	100	0.11	µg/L	U	0.11	1.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	100	µg/L	U	100	0.099	µg/L	U	0.099	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	4	µg/L	U	4	1	µg/L	U	0.6	2.5	NA
MW-16	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	100	µg/L	U	100	0.04	µg/L	U	0.04	1.5	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	µg/L	U	13	0.18	µg/L	U	0.18	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	µg/L	U	13	0.15	µg/L	U	0.15	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	µg/L	U	13	0.22	µg/L	U	0.22	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13	µg/L	U	13	0.28	µg/L	U	0.28	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	µg/L	U	13	0.11	µg/L	U	0.11	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	µg/L	U	13	0.19	µg/L	U	0.19	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	µg/L	U	13	0.21	µg/L	U	0.21	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	µg/L	U	13	0.29	µg/L	U	0.29	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	µg/L	U	13	0.31	µg/L	U	0.31	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	3.6	µg/L	LJ	13	2	µg/L		0.14	1	53
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13	µg/L	U	13	1	µg/L	U	0.81	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3	µg/L	U	1.3	0.18	µg/L	U	0.18	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	µg/L	U	13	0.1	µg/L	U	0.1	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	µg/L	U	13	0.14	µg/L	U	0.14	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	µg/L	U	13	0.16	µg/L	U	0.16	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	13	µg/L	U	13	1	µg/L		0.1	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	µg/L	U	13	0.13	µg/L	U	0.13	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	µg/L	U	13	0.22	µg/L	U	0.22	1	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-16	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	µg/L	U	13	0.11	µg/L	U	0.11	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13	µg/L	U	13	0.13	µg/L	U	0.13	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	µg/L	U	130	1	µg/L	U	0.76	2	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13	µg/L	U	13	0.13	µg/L	U	0.13	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130	µg/L	U	130	0.35	µg/L	U	0.35	2	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	µg/L	U	13	0.14	µg/L	U	0.14	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	µg/L	U	130	0.45	µg/L	U	0.45	2	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Acetone	130	µg/L	U	130	1	µg/L	U	0.99	5	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Benzene	1800	µg/L		130	2100	µg/L		8	100	15
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	µg/L	U	13	0.19	µg/L	U	0.19	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	µg/L	U	13	0.16	µg/L	U	0.16	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromoform	13	µg/L	U	13	0.19	µg/L	U	0.19	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13	µg/L	UJv	13	0.25	µg/L	U	0.25	2	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13	µg/L	U	13	0.24	µg/L	U	0.24	2	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	µg/L	U	13	0.15	µg/L	U	0.15	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13	µg/L	U	13	0.12	µg/L	U	0.12	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13	µg/L	U	13	0.08	µg/L	U	0.08	2	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	µg/L	U	13	3	µg/L		0.13	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	µg/L	U	13	0.18	µg/L	U	0.18	2	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	µg/L	U	13	0.06	µg/L	U	0.06	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	µg/L	U	13	0.18	µg/L	U	0.18	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13	µg/L	U	13	0.15	µg/L	U	0.15	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13	µg/L	U	13	1	µg/L	U	0.52	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	µg/L	U	13	0.12	µg/L	U *	0.12	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	2.9	µg/L	LJ	13	2	µg/L		0.11	1	23
MW-16	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13	µg/L	U	13	0.17	µg/L	U	0.17	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	14	µg/L		13	22	µg/L		0.18	1	44
MW-16	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	µg/L	U	13	1	µg/L	J	0.12	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	µg/L	U	13	0.15	µg/L	U	0.15	5	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Naphthalene	17	µg/L		13	18	µg/L		0.32	1	6
MW-16	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	µg/L	U	13	2	µg/L		0.16	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	17	µg/L		13	24	µg/L		0.15	1	34
MW-16	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	µg/L	U	13	0.36	µg/L	J	0.1	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	µg/L	U	13	2	µg/L		0.12	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Styrene	13	µg/L	U	13	0.078	µg/L	J	0.07	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	µg/L	U	13	0.42	µg/L	J	0.08	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13	µg/L	U	13	0.13	µg/L	U	0.13	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Toluene	13	µg/L	U	13	5	µg/L		0.15	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13	µg/L	U	13	0.09	µg/L	U	0.09	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	µg/L	U	13	0.21	µg/L	U	0.21	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13	µg/L	U	13	0.18	µg/L	U	0.18	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13	µg/L	U	13	0.08	µg/L	U	0.08	1	NA
MW-16	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13	µg/L	UJ	13	0.11	µg/L	U	0.11	2	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-17	INORGANICS	Aluminum	0.2	µg/L	U	0.2	0.059	µg/L	J	0.022	0.5	NA
MW-17	INORGANICS	Arsenic	0.0271	µg/L		0.001	0.026	µg/L		0.0033	0.01	4
MW-17	INORGANICS	Barium	0.114	µg/L		0.01	0.12	µg/L		0.0022	0.02	5
MW-17	INORGANICS	Chromium	0.002	µg/L	U	0.002	0.0016	µg/L	U	0.0016	0.01	NA
MW-17	INORGANICS	Cobalt	0.0013	µg/L		0.001	0.0013	µg/L	J	0.00063	0.01	0
MW-17	INORGANICS	Copper	0.002	µg/L	U	0.002	0.0015	µg/L	U	0.0015	0.01	NA
MW-17	INORGANICS	Lead	0.00027	µg/L	LJ	0.001	0.0029	µg/L	U	0.0029	0.01	NA
MW-17	INORGANICS	Manganese	0.496	µg/L		0.001	1	µg/L		0.00084	0.01	1
MW-17	INORGANICS	Mercury	0.0001	µg/L	LJ	0.0002	2.6E-05	µg/L	U	2.6E-05	0.0002	NA
MW-17	INORGANICS	Nickel	0.0015	µg/L		0.001	0.0018	µg/L	U	0.0018	0.01	NA
MW-17	INORGANICS	Selenium	0.0012	µg/L	LJ	0.005	0.0042	µg/L	U	0.0042	0.04	NA
MW-17	INORGANICS	Thallium	0.001	µg/L	U	0.001	0.0078	µg/L	U	0.0078	0.03	NA
MW-17	INORGANICS	Vanadium	0.005	µg/L	U	0.005	0.0017	µg/L	U ^	0.0017	0.01	NA
MW-17	INORGANICS	Zinc	0.0008	µg/L	LJ	0.002	0.0028	µg/L	J B	0.0022	0.03	111
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	18	µg/L		5	22	µg/L		0.7	15	20
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene	0.23	µg/L		0.1	1	µg/L	U	0.8	10	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene	0.1	µg/L	U	0.1	1	µg/L	U	0.6	10	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	0.1	µg/L	U	0.1	1	µg/L	U	0.5	10	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene	0.1	µg/L	U	0.1	1	µg/L	U	0.8	20	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene	0.1	µg/L	U	0.1	1	µg/L	U	0.8	15	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	0.1	µg/L	U	0.1	1	µg/L	U	0.7	20	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,i)perylene	0.1	µg/L	U	0.1	1	µg/L	U	0.8	25	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene	0.1	µg/L	U	0.1	1	µg/L	U	0.9	20	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	0.1	µg/L	U	0.1	1	µg/L	U	0.8	15	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene	0.1	µg/L	U	0.1	1	µg/L	U	0.8	25	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene	0.1	µg/L	U	0.1	1	µg/L	U	0.7	25	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	0.33	µg/L		0.1	1	µg/L	U	0.7	15	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	0.1	µg/L	U	0.1	1	µg/L	U	0.7	20	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	0.13	µg/L		0.1	1	µg/L	U	0.6	15	NA
MW-17	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	0.1	µg/L	U	0.1	1	µg/L	U	1.1	20	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	5	µg/L	U	5	3	µg/L	U	2.5	20	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	5	µg/L	U	5	2	µg/L	U	1.8	20	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	5	µg/L	U	5	2	µg/L	U	1.5	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	5	µg/L	U	5	3	µg/L	U	3.1	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	10	µg/L	U	10	4	µg/L	U	3.9	50	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	5	µg/L	U	5	1	µg/L	U	1.3	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	5	µg/L	U	5	1	µg/L	U	0.8	10	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	5	µg/L	U	5	1	µg/L	U	0.8	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	5	µg/L	U	5	1	µg/L	U	1.3	20	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	10	µg/L	U	10	2	µg/L	U	1.9	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	5	µg/L	U	5	2	µg/L	U	2.2	10	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	5	µg/L	U	5	2	µg/L	U	1.8	100	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	10	µg/L	U	10	2	µg/L	U	1.6	25	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	10	µg/L	U	10	8	µg/L	U	8.3	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	5	µg/L	U	5	1	µg/L	U	1	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	5	µg/L	U	5	2	µg/L	U	1.7	10	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	5	µg/L	U	5	2	µg/L	U	2.1	10	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	5	µg/L	U	5	1	µg/L	U	1	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	10	µg/L	U	10	3	µg/L	U	2.5	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	10	µg/L	U	10	6	µg/L	U	5.6	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	10	µg/L	U	10	1	µg/L	U	0.8	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	5	µg/L	U	5	1	µg/L	U	1.3	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	5	µg/L	U	5	2	µg/L	U	1.5	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	2	µg/L	LJ	5	4	µg/L	U	3.7	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	5	µg/L	U	5	1	µg/L	U	1.2	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	5	µg/L	U	5	1	µg/L	U	0.8	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	5	µg/L	U	5	15	µg/L	U	15	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	5	µg/L	U	5	1	µg/L	U	0.7	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	5	µg/L	U	5	1	µg/L	U	1.1	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	5	µg/L	U	5	2	µg/L	U	1.6	50	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	5	µg/L	U	5	1	µg/L	U	1.1	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	5	µg/L	U	5	1	µg/L	U	1.3	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	5	µg/L	U	5	1	µg/L	U	1	20	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	5	µg/L	U	5	1	µg/L	U	1.1	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	5	µg/L	U	5	1	µg/L	U	1.1	15	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	5	µg/L	U	5	1	µg/L	U	1	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	0.2	µg/L	U	0.2	6	µg/L	U	6.1	25	NA
MW-17	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	7.2	µg/L		5	3	µg/L	J	0.4	15	97
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	µg/L	U	13	9	µg/L	U	9	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	µg/L	U	13	8	µg/L	U	7.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	µg/L	U	13	11	µg/L	U	11	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13	µg/L	U	13	14	µg/L	U	14	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	µg/L	U	13	6	µg/L	U	5.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	µg/L	U	13	10	µg/L	U	9.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	µg/L	U	13	11	µg/L	U	11	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	µg/L	U	13	15	µg/L	U	15	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	µg/L	U	13	16	µg/L	U	16	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	240	µg/L		13	290	µg/L		7	50	19
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	µg/L	UJv	0.05	41	µg/L	U *	41	50	200
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	µg/L	U	0.05	9	µg/L	U	9	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	µg/L	U	13	5	µg/L	U	5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	µg/L	U	13	7	µg/L	U	7	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	µg/L	U	13	8	µg/L	U	8	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	84	µg/L		13	98	µg/L		5	50	15
MW-17	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	µg/L	U	13	7	µg/L	U	6.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	µg/L	U	13	11	µg/L	U	11	50	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-17	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	µg/L	U	13	6	µg/L	U	5.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13	µg/L	U	13	7	µg/L	U	6.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	µg/L	U	130	38	µg/L	U	38	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13	µg/L	U	13	7	µg/L	U	6.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130	µg/L	U	130	18	µg/L	U	18	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	µg/L	U	13	7	µg/L	U	7	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	µg/L	U	130	23	µg/L	U	23	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Acetone	130	µg/L	U	130	50	µg/L	U	50	250	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Benzene	2500	µg/L		130	2500	µg/L		16	200	0
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	µg/L	U	13	10	µg/L	U	9.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	µg/L	U	13	8	µg/L	U	8	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromoform	13	µg/L	U	13	10	µg/L	U	9.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13	µg/L	UJv	13	13	µg/L	U	13	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13	µg/L	U	13	12	µg/L	U	12	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	µg/L	U	13	8	µg/L	U	7.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13	µg/L	U	13	6	µg/L	U	6	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13	µg/L	U	13	4	µg/L	U	4	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	µg/L	U	13	17	µg/L	J	6.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	µg/L	U	13	9	µg/L	U *	9	100	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	µg/L	U	13	3	µg/L	U	3	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	µg/L	U	13	9	µg/L	U	9	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13	µg/L	U	13	8	µg/L	U	7.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13	µg/L	U	13	26	µg/L	U	26	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	µg/L	U	13	6	µg/L	U *	6	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	320	µg/L		13	340	µg/L		5.5	50	6
MW-17	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13	µg/L	U	13	9	µg/L	U	8.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	16	µg/L		13	22	µg/L	J	9	50	32
MW-17	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	µg/L	U	13	6	µg/L	U	6	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	µg/L	U	13	8	µg/L	U	7.5	250	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Naphthalene	76	µg/L		13	150	µg/L		16	50	66
MW-17	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	µg/L	U	13	8	µg/L	U	8	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	27	µg/L		13	41	µg/L	J	7.5	50	41
MW-17	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	µg/L	U	13	5	µg/L	U	5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	µg/L	U	13	6	µg/L	U	6	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Styrene	13	µg/L	U	13	4	µg/L	U	3.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	µg/L	U	13	4	µg/L	U	4	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13	µg/L	U	13	7	µg/L	U	6.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Toluene	13	µg/L	U	13	10	µg/L	J	7.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13	µg/L	U	13	5	µg/L	U	4.5	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	µg/L	U	13	11	µg/L	U	11	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13	µg/L	U	13	9	µg/L	U	9	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13	µg/L	U	13	4	µg/L	U	4	50	NA
MW-17	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13	µg/L	UJ	13	6	µg/L	U	5.5	100	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-18	INORGANICS	Aluminum	0.2	µg/L	U	0.2	0.041	µg/L	J	0.022	0.5	NA
MW-18	INORGANICS	Arsenic	0.148	µg/L		0.001	0.15	µg/L		0.0033	0.01	1
MW-18	INORGANICS	Barium	0.381	µg/L		0.01	0.4	µg/L		0.0022	0.02	5
MW-18	INORGANICS	Chromium	0.00055	µg/L	LJ	0.002	0.0016	µg/L	U	0.0016	0.01	NA
MW-18	INORGANICS	Cobalt	0.0028	µg/L		0.001	0.0029	µg/L	J	0.00063	0.01	4
MW-18	INORGANICS	Copper	0.0014	µg/L	LJ	0.002	0.0024	µg/L	J B	0.0015	0.01	53
MW-18	INORGANICS	Lead	0.005	µg/L		0.001	0.0033	µg/L	J	0.0029	0.01	41
MW-18	INORGANICS	Manganese	0.93	µg/L		0.001	1	µg/L		0.00084	0.01	0
MW-18	INORGANICS	Mercury	3.6E-05	µg/L	LJ	0.0002	2.6E-05	µg/L	U	2.6E-05	0.0002	NA
MW-18	INORGANICS	Nickel	0.0051	µg/L		0.001	0.0047	µg/L	J	0.0018	0.01	8
MW-18	INORGANICS	Selenium	0.0128	µg/L		0.005	0.0042	µg/L	U	0.0042	0.04	NA
MW-18	INORGANICS	Thallium	0.001	µg/L	U	0.001	0.0078	µg/L	U	0.0078	0.03	NA
MW-18	INORGANICS	Vanadium	0.005	µg/L	U	0.005	0.0017	µg/L	U ^	0.0017	0.01	NA
MW-18	INORGANICS	Zinc	0.0015	µg/L	LJ	0.002	0.0034	µg/L	J B	0.0022	0.03	78
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	51	µg/L		50	64	µg/L		0.69	15	23
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthene	1	µg/L	U	1	1	µg/L	U	0.79	9.9	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Acenaphthylene	1	µg/L	U	1	1	µg/L	U	0.59	9.9	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Anthracene	1	µg/L	U	1	0.49	µg/L	U	0.49	9.9	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)anthracene	1	µg/L	U	1	1	µg/L	U	0.79	20	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(a)pyrene	1	µg/L	U	1	1	µg/L	U	0.79	15	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(b)fluoranthene	1	µg/L	U	1	1	µg/L	U	0.69	20	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(g,h,i)perylene	1	µg/L	U	1	1	µg/L	U	0.79	25	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Benzo(k)fluoranthene	1	µg/L	U	1	1	µg/L	U	0.89	20	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Chrysene	1	µg/L	U	1	1	µg/L	U	0.79	15	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Dibenzo(a,h)anthracene	1	µg/L	U	1	1	µg/L	U	0.79	25	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Fluoranthene	1	µg/L	U	1	1	µg/L	U	0.69	25	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Fluorene	1	µg/L	U	1	1	µg/L	U	0.69	15	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Indeno(1,2,3-cd)pyrene	1	µg/L	U	1	1	µg/L	U	0.69	20	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Phenanthrene	1	µg/L	U	1	1	µg/L	U	0.59	15	NA
MW-18	POLYCYCLIC AROMATIC HYDROCARBONS	Pyrene	1	µg/L	U	1	1	µg/L	U	1.1	20	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,5-Trichlorophenol	50	µg/L	U	50	3	µg/L	U	2.5	20	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4,6-Trichlorophenol	50	µg/L	U	50	2	µg/L	U	1.8	20	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dichlorophenol	50	µg/L	U	50	2	µg/L	U	1.5	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	500	µg/L		100	660	µg/L		15	120	28
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrophenol	100	µg/L	U	100	4	µg/L	U	3.8	49	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dinitrotoluene	50	µg/L	U	50	1	µg/L	U	1.3	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2,6-Dinitrotoluene	50	µg/L	U	50	1	µg/L	U	0.79	9.9	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chloronaphthalene	50	µg/L	U	50	1	µg/L	U	0.79	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Chlorophenol	50	µg/L	U	50	1	µg/L	U	1.3	20	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitroaniline	100	µg/L	U	100	2	µg/L	U	1.9	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	2-Nitrophenol	50	µg/L	U	50	2	µg/L	U	2.2	9.9	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	3,3'-Dichlorobenzidine	50	µg/L	U	50	2	µg/L	U	1.8	99	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	3-Nitroaniline	100	µg/L	U	100	2	µg/L	U	1.6	25	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4,6-Dinitro-2-methylphenol	100	µg/L	U	100	8	µg/L	U	8.2	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Bromophenyl-phenylether	50	µg/L	U	50	1	µg/L	U	0.99	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloro-3-methylphenol	50	µg/L	U	50	2	µg/L	U	1.7	9.9	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chloroaniline	50	µg/L	U	50	2	µg/L	U	2.1	9.9	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Chlorophenyl-phenylether	50	µg/L	U	50	1	µg/L	U	0.99	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitroaniline	100	µg/L	U	100	3	µg/L	U	2.5	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	4-Nitrophenol	100	µg/L	U	100	6	µg/L	U	5.5	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Aniline	100	µg/L	U	100	1	µg/L	U	0.79	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-chloroethoxy)methane	50	µg/L	U	50	1	µg/L	U	1.3	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-Chloroethyl)ether	50	µg/L	U	50	2	µg/L	U	1.5	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Bis(2-ethylhexyl)phthalate	50	µg/L	U	50	4	µg/L	U	3.6	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Butylbenzylphthalate	50	µg/L	U	50	1	µg/L	U	1.2	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Dibenzofuran	50	µg/L	U	50	1	µg/L	U	0.79	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Diethylphthalate	50	µg/L	U	50	15	µg/L	U	15	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Dimethylphthalate	50	µg/L	U	50	1	µg/L	U	0.69	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-butylphthalate	50	µg/L	U	50	1	µg/L	U	1.1	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Di-n-octylphthalate	50	µg/L	U	50	2	µg/L	U	1.6	49	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorobenzene	50	µg/L	U	50	1	µg/L	U	1.1	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachlorocyclopentadiene	50	µg/L	U	50	1	µg/L	U	1.3	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Hexachloroethane	50	µg/L	U	50	1	µg/L	U	0.99	20	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Isophorone	50	µg/L	U	50	1	µg/L	U	1.1	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Nitrobenzene	50	µg/L	U	50	1	µg/L	U	1.1	15	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	N-Nitroso-di-n-propylamine	50	µg/L	U	50	1	µg/L	U	0.99	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Pentachlorophenol	2	µg/L	U	2	6	µg/L	U	6	25	NA
MW-18	SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	92	µg/L		50	31	µg/L		0.39	15	99
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	µg/L	U	13	36	µg/L	U	36	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	µg/L	U	13	30	µg/L	U	30	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	µg/L	U	13	44	µg/L	U	44	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13	µg/L	U	13	56	µg/L	U	56	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	µg/L	U	13	22	µg/L	U	22	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	µg/L	U	13	38	µg/L	U	38	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	µg/L	U	13	42	µg/L	U	42	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	µg/L	U	13	58	µg/L	U	58	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	µg/L	U	13	62	µg/L	U	62	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	420	µg/L		13	480	µg/L		28	200	13
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13	µg/L	U	13	160	µg/L	U	160	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3	µg/L	U	1.3	36	µg/L	U	36	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	µg/L	U	13	20	µg/L	U	20	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	µg/L	U	13	28	µg/L	U	28	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	µg/L	U	13	32	µg/L	U	32	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	180	µg/L		13	190	µg/L	J	20	200	5
MW-18	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	µg/L	U	13	26	µg/L	U	26	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	µg/L	U	13	44	µg/L	U	44	200	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-18	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	µg/L	U	13	22	µg/L	U	22	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13	µg/L	U	13	26	µg/L	U	26	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	µg/L	U	130	150	µg/L	U	150	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13	µg/L	U	13	26	µg/L	U	26	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130	µg/L	U	130	70	µg/L	U	70	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	µg/L	U	13	28	µg/L	U	28	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	µg/L	U	130	90	µg/L	U	90	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Acetone	130	µg/L	U	130	200	µg/L	U	200	1000	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Benzene	21000	µg/L		630	22000	µg/L		400	5000	5
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	µg/L	U	13	38	µg/L	U	38	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	µg/L	U	13	32	µg/L	U	32	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromoform	13	µg/L	U	13	38	µg/L	U	38	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13	µg/L	UJv	13	50	µg/L	U	50	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13	µg/L	U	13	48	µg/L	U	48	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	µg/L	U	13	30	µg/L	U	30	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13	µg/L	U	13	24	µg/L	U	24	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13	µg/L	U	13	16	µg/L	U	16	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	µg/L	U	13	26	µg/L	U	26	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	µg/L	U	13	36	µg/L	U	36	400	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	µg/L	U	13	12	µg/L	U	12	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	µg/L	U	13	36	µg/L	U	36	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13	µg/L	U	13	30	µg/L	U	30	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13	µg/L	U	13	100	µg/L	U	100	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	µg/L	U	13	24	µg/L	U *	24	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	850	µg/L		630	960	µg/L		22	200	12
MW-18	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13	µg/L	U	13	34	µg/L	U	34	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	47	µg/L		13	56	µg/L	J	36	200	18
MW-18	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	µg/L	U	13	24	µg/L	U	24	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	µg/L	U	13	30	µg/L	U	30	1000	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Naphthalene	130	µg/L		13	160	µg/L	J	64	200	21
MW-18	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	µg/L	U	13	32	µg/L	U	32	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	44	µg/L		13	52	µg/L	J	30	200	17
MW-18	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	µg/L	U	13	20	µg/L	U	20	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	µg/L	U	13	24	µg/L	U	24	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Styrene	13	µg/L	U	13	19	µg/L	J	14	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	µg/L	U	13	16	µg/L	U	16	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13	µg/L	U	13	26	µg/L	U	26	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Toluene	3900	µg/L		630	4500	µg/L		30	200	14
MW-18	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13	µg/L	U	13	18	µg/L	U	18	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	µg/L	U	13	42	µg/L	U	42	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13	µg/L	U	13	36	µg/L	U	36	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13	µg/L	U	13	16	µg/L	U	16	200	NA
MW-18	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13	µg/L	UJ	13	22	µg/L	U	22	400	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	13	µg/L	U	13	9	µg/L	U	9	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	13	µg/L	U	13	8	µg/L	U	7.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	13	µg/L	U	13	11	µg/L	U	11	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	13	µg/L	U	13	14	µg/L	U	14	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	13	µg/L	U	13	6	µg/L	U	5.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	13	µg/L	U	13	10	µg/L	U	9.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	13	µg/L	U	13	11	µg/L	U	11	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	13	µg/L	U	13	15	µg/L	U	15	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	13	µg/L	U	13	16	µg/L	U	16	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	250	µg/L		13	300	µg/L		7	50	18
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	13	µg/L	U	13	41	µg/L	U *	41	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	1.3	µg/L	U	1.3	9	µg/L	U	9	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	13	µg/L	U	13	5	µg/L	U	5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	13	µg/L	U	13	7	µg/L	U	7	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	13	µg/L	U	13	8	µg/L	U	8	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	72	µg/L		13	86	µg/L		5	50	18
MW-19	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	13	µg/L	U	13	7	µg/L	U	6.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	13	µg/L	U	13	11	µg/L	U	11	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	13	µg/L	U	13	6	µg/L	U	5.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	13	µg/L	U	13	7	µg/L	U	6.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	2-Butanone	130	µg/L	U	130	38	µg/L	U	38	100	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	13	µg/L	U	13	7	µg/L	U	6.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	130	µg/L	U	130	18	µg/L	U	18	100	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	13	µg/L	U	13	7	µg/L	U	7	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	130	µg/L	U	130	23	µg/L	U	23	100	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Acetone	130	µg/L	U	130	50	µg/L	U	50	250	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Benzene	3900	µg/L		250	4400	µg/L		40	500	12
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	13	µg/L	U	13	10	µg/L	U	9.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	13	µg/L	U	13	8	µg/L	U	8	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromoform	13	µg/L	U	13	10	µg/L	U	9.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Bromomethane	13	µg/L	UJv	13	13	µg/L	U	13	100	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	13	µg/L	U	13	12	µg/L	U	12	100	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	13	µg/L	U	13	8	µg/L	U	7.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	13	µg/L	U	13	6	µg/L	U	6	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Chloroethane	13	µg/L	U	13	4	µg/L	U	4	100	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Chloroform	13	µg/L	U	13	13	µg/L	J	6.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Chloromethane	13	µg/L	U	13	9	µg/L	U *	9	100	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	13	µg/L	U	13	3	µg/L	U	3	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	13	µg/L	U	13	9	µg/L	U	9	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	13	µg/L	U	13	8	µg/L	U	7.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	13	µg/L	U	13	26	µg/L	U	26	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	13	µg/L	U	13	6	µg/L	U *	6	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	410	µg/L		13	510	µg/L		5.5	50	22

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-19	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	13	µg/L	U	13	9	µg/L	U	8.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	21	µg/L		13	30	µg/L	J	9	50	35
MW-19	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	13	µg/L	U	13	130	µg/L		6	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	13	µg/L	U	13	8	µg/L	U	7.5	250	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Naphthalene	130	µg/L		13	180	µg/L		16	50	32
MW-19	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	13	µg/L	U	13	8	µg/L	U	8	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	33	µg/L		13	48	µg/L	J	7.5	50	37
MW-19	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	13	µg/L	U	13	5	µg/L	U	5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	13	µg/L	U	13	6	µg/L	U	6	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Styrene	13	µg/L	U	13	4	µg/L	U	3.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	13	µg/L	U	13	4	µg/L	U	4	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	13	µg/L	U	13	7	µg/L	U	6.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Toluene	27	µg/L		13	26	µg/L	J	7.5	50	4
MW-19	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	13	µg/L	U	13	5	µg/L	U	4.5	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	13	µg/L	U	13	11	µg/L	U	11	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	13	µg/L	U	13	9	µg/L	U	9	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	13	µg/L	U	13	4	µg/L	U	4	50	NA
MW-19	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	13	µg/L	UJ	13	6	µg/L	U	5.5	100	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	µg/L	UJv	0.5	0.22	µg/L	U	0.22	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	0.28	µg/L	U	0.28	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	µg/L	U	0.5	0.11	µg/L	U	0.11	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5	µg/L	U	0.5	0.21	µg/L	U	0.21	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	0.29	µg/L	U	0.29	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5	µg/L	U	0.5	0.31	µg/L	U	0.31	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	µg/L	UJv	0.05	1	µg/L	U	0.81	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	µg/L	U	0.05	0.18	µg/L	U	0.18	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	µg/L	U	0.5	0.16	µg/L	U	0.16	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	µg/L	U	0.5	0.22	µg/L	U	0.22	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	0.11	µg/L	U	0.11	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	µg/L	U	5	1	µg/L	U	0.76	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5	µg/L	U	5	0.35	µg/L	U	0.35	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	µg/L	U	5	0.45	µg/L	U	0.45	2	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-20	VOLATILE ORGANIC COMPOUNDS	Acetone	5	µg/L	U	5	1	µg/L	U	0.99	5	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	µg/L	U	0.5	0.16	µg/L	U	0.16	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	µg/L	UJv	0.5	0.25	µg/L	U	0.25	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	µg/L	U	0.5	0.24	µg/L	U	0.24	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	µg/L	U	0.5	0.12	µg/L	U	0.12	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	2	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	0.06	µg/L	U	0.06	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	µg/L	U	0.5	1	µg/L	U	0.52	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	µg/L	U	0.5	0.12	µg/L	U *	0.12	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.5	µg/L	U	0.5	0.11	µg/L	U	0.11	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	µg/L	U	0.5	0.17	µg/L	U	0.17	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	2.4	µg/L		0.5	3	µg/L		0.12	1	26
MW-20	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	5	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Naphthalene	1	µg/L	UM	0.5	0.32	µg/L	U	0.32	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	µg/L	U	0.5	0.16	µg/L	U	0.16	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5	µg/L	U	0.5	0.12	µg/L	U	0.12	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	µg/L	U	0.5	0.07	µg/L	U	0.07	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	0.09	µg/L	U	0.09	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	0.21	µg/L	U	0.21	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	1	NA
MW-20	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	µg/L	UJ	0.5	0.11	µg/L	U	0.11	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	0.22	µg/L	U	0.22	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	µg/L	UJv	0.5	0.28	µg/L	U	0.28	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	µg/L	U	0.5	0.11	µg/L	U	0.11	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5	µg/L	U	0.5	0.21	µg/L	U	0.21	1	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	0.29	µg/L	U	0.29	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5	µg/L	U	0.5	0.31	µg/L	U	0.31	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	µg/L	UJv	0.05	1	µg/L	U	0.81	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	µg/L	U	0.05	0.18	µg/L	U	0.18	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.53	µg/L		0.5	1	µg/L	J	0.14	1	30
MW-21	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	µg/L	U	0.5	0.16	µg/L	U	0.16	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	µg/L	U	0.5	0.22	µg/L	U	0.22	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	0.11	µg/L	U	0.11	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	µg/L	U	5	1	µg/L	U	0.76	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5	µg/L	U	5	0.35	µg/L	U	0.35	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	µg/L	U	5	0.45	µg/L	U	0.45	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Acetone	5	µg/L	U	5	1	µg/L	U	0.99	5	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	µg/L	U	0.5	0.33	µg/L	J	0.08	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	µg/L	U	0.5	1	µg/L		0.16	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	µg/L	UJv	0.5	0.25	µg/L	U	0.25	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	µg/L	U	0.5	0.24	µg/L	U	0.24	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	µg/L	UJ	0.5	0.15	µg/L	U	0.15	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	µg/L	U	0.5	0.12	µg/L	U	0.12	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	µg/L	U	0.5	0.17	µg/L	J	0.13	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	2	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.78	µg/L		0.5	1	µg/L	J	0.06	1	5
MW-21	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	µg/L	UJv	0.5	0.18	µg/L	U	0.18	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	µg/L	U	0.5	1	µg/L	U	0.52	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	µg/L	U	0.5	0.12	µg/L	U *	0.12	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	5.9	µg/L	J^	0.5	7	µg/L		0.11	1	11
MW-21	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	µg/L	U	0.5	0.17	µg/L	U	0.17	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	2	µg/L	J^	0.5	2	µg/L		0.18	1	5
MW-21	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5	µg/L	U	0.5	0.37	µg/L	J	0.12	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	5	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Naphthalene	1.8	µg/L	UM	0.5	3	µg/L		0.32	1	59
MW-21	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	µg/L	U	0.5	0.37	µg/L	J	0.16	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	µg/L	U	0.5	2	µg/L		0.15	1	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-21	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.27	µg/L	LJ	0.5	0.26	µg/L	J	0.12	1	4
MW-21	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	µg/L	U	0.5	0.07	µg/L	U	0.07	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	µg/L	U	0.5	0.19	µg/L	J	0.08	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.2	µg/L	J^	0.5	1	µg/L		0.13	1	0
MW-21	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	0.09	µg/L	U	0.09	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	µg/L	UJv	0.5	0.21	µg/L	U	0.21	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	2.3	µg/L	J^	0.5	2	µg/L		0.18	1	0
MW-21	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	1	NA
MW-21	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	µg/L	UJ	0.5	0.11	µg/L	U	0.11	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	0.22	µg/L	U	0.22	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	0.28	µg/L	U	0.28	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	µg/L	U	0.5	0.11	µg/L	U	0.11	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5	µg/L	U	0.5	0.21	µg/L	U	0.21	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	0.29	µg/L	U	0.29	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5	µg/L	U	0.5	0.31	µg/L	U	0.31	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	µg/L	UJv	0.05	1	µg/L	U	0.81	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	µg/L	UJv	0.05	0.18	µg/L	U	0.18	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	µg/L	U	0.5	0.16	µg/L	U	0.16	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	µg/L	U	0.5	0.22	µg/L	U	0.22	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	0.11	µg/L	U	0.11	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	µg/L	U	5	1	µg/L	U	0.76	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5	µg/L	U	5	0.35	µg/L	U	0.35	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	µg/L	U	5	0.45	µg/L	U	0.45	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Acetone	5	µg/L	U	5	1	µg/L	U	0.99	5	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	µg/L	U	0.5	0.16	µg/L	U	0.16	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	µg/L	UJv	0.5	0.25	µg/L	U	0.25	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	µg/L	U	0.5	0.24	µg/L	U	0.24	2	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-22	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	µg/L	UJ	0.5	0.15	µg/L	U	0.15	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	µg/L	U	0.5	0.12	µg/L	U	0.12	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	2	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.28	µg/L	LJ	0.5	0.06	µg/L	U	0.06	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	µg/L	U	0.5	1	µg/L	U	0.52	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	µg/L	U	0.5	0.12	µg/L	U *	0.12	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.5	µg/L	U	0.5	0.11	µg/L	U	0.11	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	µg/L	U	0.5	0.17	µg/L	U	0.17	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5	µg/L	U	0.5	1	µg/L	J	0.12	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	5	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Naphthalene	0.5	µg/L	U	0.5	1	µg/L	J	0.32	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	µg/L	U	0.5	0.16	µg/L	U	0.16	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5	µg/L	U	0.5	0.12	µg/L	U	0.12	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	µg/L	U	0.5	0.07	µg/L	U	0.07	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.3	µg/L		0.5	1	µg/L		0.13	1	7
MW-22	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	0.09	µg/L	U	0.09	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	0.21	µg/L	U	0.21	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	1.2	µg/L		0.5	1	µg/L		0.18	1	0
MW-22	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	1	NA
MW-22	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	µg/L	UJ	0.5	0.11	µg/L	U	0.11	2	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	1	µg/L	U	0.9	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	1	µg/L	U	0.75	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	1	µg/L	U	1.1	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	µg/L	UJv	0.5	1	µg/L	U	1.4	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	µg/L	U	0.5	1	µg/L	U	0.55	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5	µg/L	U	0.5	1	µg/L	U	0.95	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5	µg/L	U	0.5	1	µg/L	U	1.1	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	2	µg/L	U	1.5	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5	µg/L	U	0.5	2	µg/L	U	1.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.7	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	µg/L	UJv	0.05	4	µg/L	U	4.1	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	µg/L	U	0.05	1	µg/L	U	0.9	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.5	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5	µg/L	U	0.5	1	µg/L	U	0.7	5	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-4	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	µg/L	U	0.5	1	µg/L	U	0.8	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.5	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.65	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	µg/L	U	0.5	1	µg/L	U	1.1	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.55	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	µg/L	U	0.5	1	µg/L	U	0.65	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	µg/L	U	5	4	µg/L	U	3.8	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	µg/L	U	0.5	1	µg/L	U	0.65	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	6.1	µg/L		5	2	µg/L	U	1.8	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	µg/L	U	0.5	1	µg/L	U	0.7	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	µg/L	U	5	2	µg/L	U	2.3	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Acetone	5	µg/L	U	5	5	µg/L	U	5	25	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	µg/L	U	0.5	0.41	µg/L	J	0.4	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.95	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	µg/L	U	0.5	1	µg/L	U	0.8	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	µg/L	U	0.5	1	µg/L	U	0.95	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	µg/L	UJv	0.5	1	µg/L	U	1.3	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	µg/L	U	0.5	1	µg/L	U	1.2	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	µg/L	UJ	0.5	1	µg/L	U	0.75	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	µg/L	U	0.5	0.4	µg/L	U	0.4	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	µg/L	U	0.5	1	µg/L	U	0.65	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	µg/L	U	0.5	1	µg/L	U	0.9	10	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	0.3	µg/L	U	0.3	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	µg/L	UJv	0.5	1	µg/L	U	0.9	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	µg/L	U	0.5	1	µg/L	U	0.75	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	µg/L	U	0.5	3	µg/L	U	2.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	µg/L	U	0.5	1	µg/L	U *	0.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.55	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	µg/L	U	0.5	1	µg/L	U	0.85	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.58	µg/L		0.5	1	µg/L	U	0.9	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5	µg/L	U	0.5	1	µg/L	U	0.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	µg/L	U	0.5	1	µg/L	U	0.75	25	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Naphthalene	0.5	µg/L	U	0.5	2	µg/L	U	1.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.8	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.75	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	µg/L	U	0.5	1	µg/L	U	0.5	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5	µg/L	U	0.5	1	µg/L	U	0.6	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	µg/L	U	0.5	0.35	µg/L	U	0.35	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	µg/L	U	0.5	0.4	µg/L	U	0.4	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	0.5	µg/L	U	0.5	1	µg/L	U	0.65	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	µg/L	U	0.5	1	µg/L	U	0.75	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	0.45	µg/L	U	0.45	5	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-4	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	µg/L	UJv	0.5	1	µg/L	U	1.1	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	0.5	µg/L	U	0.5	1	µg/L	U	0.9	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	µg/L	U	0.5	0.4	µg/L	U	0.4	5	NA
MW-4	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	µg/L	UJ	0.5	1	µg/L	U	0.55	10	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,1,2-Tetrachloroethane	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,1-Trichloroethane	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,2,2-Tetrachloroethane	0.5	µg/L	U	0.5	0.22	µg/L	U	0.22	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1,2-Trichloroethane	0.5	µg/L	U	0.5	0.28	µg/L	U	0.28	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethane	0.5	µg/L	U	0.5	0.11	µg/L	U	0.11	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloroethene	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,1-Dichloropropene	0.5	µg/L	U	0.5	0.21	µg/L	U	0.21	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,3-Trichloropropane	0.5	µg/L	U	0.5	0.29	µg/L	U	0.29	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trichlorobenzene	0.5	µg/L	U	0.5	0.31	µg/L	U	0.31	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromo-3-chloropropane	0.05	µg/L	UJv	0.05	1	µg/L	U	0.81	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dibromoethane	0.05	µg/L	U	0.05	0.18	µg/L	U	0.18	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichlorobenzene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,2-Dichloropropane	0.5	µg/L	U	0.5	0.16	µg/L	U	0.16	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3-Dichlorobenzene	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,3-Dichloropropane	0.5	µg/L	U	0.5	0.22	µg/L	U	0.22	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	1,4-Dichlorobenzene	0.5	µg/L	U	0.5	0.11	µg/L	U	0.11	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2,2-Dichloropropane	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Butanone	5	µg/L	U	5	1	µg/L	U	0.76	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Chlorotoluene	0.5	µg/L	U	0.5	0.13	µg/L	U	0.13	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	2-Hexanone	5	µg/L	U	5	0.35	µg/L	U	0.35	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	4-Chlorotoluene	0.5	µg/L	U	0.5	0.14	µg/L	U	0.14	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	4-Methyl-2-pentanone	5	µg/L	U	5	0.45	µg/L	U	0.45	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Acetone	5	µg/L	U	5	1	µg/L	U	0.99	5	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Benzene	0.5	µg/L	U	0.5	0.23	µg/L	J	0.08	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromobenzene	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromodichloromethane	0.5	µg/L	U	0.5	0.16	µg/L	U	0.16	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromoform	0.5	µg/L	U	0.5	0.19	µg/L	U	0.19	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Bromomethane	0.5	µg/L	UJv	0.5	0.25	µg/L	U	0.25	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Carbon Disulfide	0.5	µg/L	U	0.5	0.24	µg/L	U	0.24	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Carbon tetrachloride	0.5	µg/L	UJ	0.5	0.15	µg/L	U	0.15	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chlorobenzene	0.5	µg/L	U	0.5	0.12	µg/L	U	0.12	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloroethane	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloroform	0.5	µg/L	U	0.5	0.38	µg/L	J	0.13	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Chloromethane	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	2	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	0.5	µg/L	U	0.5	0.06	µg/L	U	0.06	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	cis-1,3-Dichloropropene	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA

Table A-1 Ground Water Split Sample Data and Corresponding PRP Sample Results

WELL	ANALYTE_GROUP	ANALYTE	EA Sample Results				PRP Sample Results					RPD
			Result	Units	Qualifier	CRQL	Result	Units	Qualifier	MDL	RL	
MW-9	VOLATILE ORGANIC COMPOUNDS	Dibromochloromethane	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Dibromomethane	0.5	µg/L	U	0.5	1	µg/L	U	0.52	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Dichlorodifluoromethane	0.5	µg/L	U	0.5	0.12	µg/L	U *	0.12	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	0.91	µg/L		0.5	1	µg/L		0.11	1	28
MW-9	VOLATILE ORGANIC COMPOUNDS	Hexachlorobutadiene	0.5	µg/L	U	0.5	0.17	µg/L	U	0.17	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	0.5	µg/L	U	0.5	0.18	µg/L	U	0.18	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	0.5	µg/L	U	0.5	0.12	µg/L	U	0.12	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Methylene chloride	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	5	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Naphthalene	0.5	µg/L	U	0.5	0.32	µg/L	U	0.32	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	n-Butylbenzene	0.5	µg/L	U	0.5	0.16	µg/L	U	0.16	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	p-Isopropyltoluene	0.5	µg/L	U	0.5	0.1	µg/L	U	0.1	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	0.5	µg/L	U	0.5	0.12	µg/L	U	0.12	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Styrene	0.5	µg/L	U	0.5	0.07	µg/L	U	0.07	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	tert-Butylbenzene	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	1.1	µg/L		0.5	1	µg/L		0.13	1	9
MW-9	VOLATILE ORGANIC COMPOUNDS	Toluene	0.5	µg/L	U	0.5	0.15	µg/L	U	0.15	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	trans-1,2-Dichloroethene	0.5	µg/L	U	0.5	0.09	µg/L	U	0.09	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	trans-1,3-Dichloropropene	0.5	µg/L	U	0.5	0.21	µg/L	U	0.21	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Trichloroethene	1.1	µg/L		0.5	1	µg/L		0.18	1	9
MW-9	VOLATILE ORGANIC COMPOUNDS	Trichlorofluoromethane	0.5	µg/L	U	0.5	0.08	µg/L	U	0.08	1	NA
MW-9	VOLATILE ORGANIC COMPOUNDS	Vinyl chloride	0.5	µg/L	UJ	0.5	0.11	µg/L	U	0.11	2	NA

NOTE:

CRQL = Contract-required quantitation limit

MDL = Method detection limit

NA = Split samples did not have detected results in both EPA and PRP data.

RL = Reporting limit

RPD = Relative percent difference

CLP Laboratory Qualifiers (used for EPA split samples):

J = Estimated value.

v = Low biased. Actual concentration may be higher than the concentration reported.

^ = High biased. Actual concentration may be lower than the concentration reported.

L = Reported concentration is below the CRQL.

M = Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination.

U = Not detected at reported quantitation limit.

TestAmerica Laboratory Qualifiers (used for PRP samples):

J = Result is less than the reporting limit, but greater than or equal to the MDL, and the concentration is an approximate value.

B = Compound was found in the blank and sample.

U = Indicates the analyte was analyzed for but not detected.

* = LCS or LCSD exceeds the control limits.

^ = Instrument related QC exceeds the control limits.

EA Engineering, Science, and Technology, Inc.

Table A-2 Air Data Analyses Summary

Sample ID	Sample Date	Analysis Method	Dilution	Analyte	Result	Units	Qualifiers	Reporting Limit
SG-19-D	5/9/2012	TO-15	10	Acetone	110	ug/m3		59
SG-19-D	5/9/2012	TO-15	1.30208	Carbon disulfide	ND	ug/m3	U	1
SG-19-D	5/9/2012	TO-15	1.30208	Carbon tetrachloride	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	10	Chlorobenzene	ND	ug/m3	U	12
SG-19-D	5/9/2012	TO-15	1.30208	Chlorodibromomethane	ND	ug/m3	U	2.8
SG-19-D	5/9/2012	TO-15	1.30208	Chloroethane	ND	ug/m3	U	0.86
SG-19-D	5/9/2012	TO-15	1.30208	Chloroform	ND	ug/m3	U	0.32
SG-19-D	5/9/2012	TO-15	1.30208	Chloromethane	ND	ug/m3	U	0.67
SG-19-D	5/9/2012	TO-15	1.30208	Cyclohexane	11	ug/m3		1.1
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dibromoethane	ND	ug/m3	U	2.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	Acrolein	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	1,3-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	1,4-Dichlorobenzene	ND	ug/m3	U	2
SG-19-D	5/9/2012	TO-15	1.30208	Dichlorodifluoromethane	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	1,1-Dichloroethane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichloroethane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	1,1-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	cis-1,2-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	trans-1,2-Dichloroethene	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	500	1,2-Dichloropropane	ND	ug/m3	U	580
SG-19-D	5/9/2012	TO-15	1.30208	cis-1,3-Dichloropropene	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	Benzene	1.9	ug/m3		0.21
SG-19-D	5/9/2012	TO-15	1.30208	trans-1,3-Dichloropropene	ND	ug/m3	U	1.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2-Dichloro-1,1,2,2-tetrafluoroethane	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	1,4-Dioxane	ND	ug/m3	U	4.7
SG-19-D	5/9/2012	TO-15	1.30208	Ethyl acetate	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	Ethylbenzene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	1-Ethyl-4-methylbenzene	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	n-Heptane	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	Hexachlorobutadiene	ND	ug/m3	U	3.5
SG-19-D	5/9/2012	TO-15	1.30208	n-Hexane	2.6	ug/m3		1.1
SG-19-D	5/9/2012	TO-15	1.30208	Benzyl chloride	ND	ug/m3	U	3.4
SG-19-D	5/9/2012	TO-15	1.30208	2-Hexanone	ND	ug/m3	U	2.7
SG-19-D	5/9/2012	TO-15	500	Isopropyl alcohol	18000	ug/m3		6100
SG-19-D	5/9/2012	TO-15	10	Methylene chloride	ND	ug/m3	U	8.7
SG-19-D	5/9/2012	TO-15	1.30208	4-Methyl-2-pentanone	ND	ug/m3	U	2.7
SG-19-D	5/9/2012	TO-15	1.30208	Methyl methacrylate	ND	ug/m3	U	1.3
SG-19-D	5/9/2012	TO-15	1.30208	Methyl tertiary-butyl ether	ND	ug/m3	U	1.2
SG-19-D	5/9/2012	TO-15	1.30208	Propene	ND	ug/m3	U	0.56

Table A-2 Air Data Analyses Summary

Sample ID	Sample Date	Analysis Method	Dilution	Analyte	Result	Units	Qualifiers	Reporting Limit
SG-19-D	5/9/2012	TO-15	1.30208	Styrene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2,2-Tetrachloroethane	ND	ug/m3	U	2.2
SG-19-D	5/9/2012	TO-15	1.30208	1,3-Butadiene	ND	ug/m3	U	0.72
SG-19-D	5/9/2012	TO-15	1.30208	Tetrachloroethene	ND	ug/m3	U	0.44
SG-19-D	5/9/2012	TO-15	1.30208	Tetrahydrofuran	ND	ug/m3	U	0.96
SG-19-D	5/9/2012	TO-15	1.30208	Toluene	3.6	ug/m3		1.2
SG-19-D	5/9/2012	TO-15	1.30208	1,2,4-Trichlorobenzene	ND	ug/m3	U	2.4
SG-19-D	5/9/2012	TO-15	1.30208	1,1,1-Trichloroethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2-Trichloroethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	Trichloroethene	ND	ug/m3	U	0.35
SG-19-D	5/9/2012	TO-15	1.30208	Trichlorofluoromethane	ND	ug/m3	U	1.8
SG-19-D	5/9/2012	TO-15	1.30208	1,1,2-Trichloro-1,2,2-trifluoroethane	ND	ug/m3	U	2.5
SG-19-D	5/9/2012	TO-15	1.30208	1,2,4-Trimethylbenzene	2.4	ug/m3		1.6
SG-19-D	5/9/2012	TO-15	1.30208	1,3,5-Trimethylbenzene	ND	ug/m3	U	1.6
SG-19-D	5/9/2012	TO-15	1.30208	Vinyl acetate	ND	ug/m3	U	2.3
SG-19-D	5/9/2012	TO-15	1.30208	Vinyl chloride	0.27	ug/m3		0.17
SG-19-D	5/9/2012	TO-15	1.30208	meta-/para-Xylene	2.7	ug/m3		1.4
SG-19-D	5/9/2012	TO-15	1.30208	ortho-Xylene	ND	ug/m3	U	1.4
SG-19-D	5/9/2012	TO-15	1.30208	Bromodichloromethane	ND	ug/m3	U	2.2
SG-19-D	5/9/2012	TO-15	1.30208	Bromoform	ND	ug/m3	U	3.4
SG-19-D	5/9/2012	TO-15	1.30208	Bromomethane	ND	ug/m3	U	1.3
NOTE: <u>Qualifiers</u> U = The analyte was not detected at or above the reported value. J =The identification of the analyte is acceptable; the reported value is an estimate. B = Blank related - The concentration found in the sample was less than 10 times the concentration found in the associated extraction, digestion, and/or analysis blank. Presence in the sample is therefore suspect.								

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	MW-21	Dichlorodifluoromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Chloromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Vinyl chloride	0.50	0.50	µg/L	UJ	0.50	0.50	µg/L	UJ	0.0
VOC	MW-21	Bromomethane	0.50	0.50	µg/L	UJv	0.50	0.50	µg/L	UJv	0.0
VOC	MW-21	Chloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Trichlorofluoromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,1-Dichloroethene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Acetone	5.0	5.0	µg/L	U	5.0	5.0	µg/L	U	0.0
VOC	MW-21	Carbon Disulfide	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Methyl acetate	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Methylene chloride	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	trans-1,2-Dichloroethene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Methyl tert-butyl ether	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,1-Dichloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	cis-1,2-Dichloroethene	0.50	0.78	µg/L		0.50	0.73	µg/L		6.6
VOC	MW-21	2-Butanone	5.0	5.0	µg/L	U	5.0	5.0	µg/L	U	0.0
VOC	MW-21	Bromochloromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Chloroform	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,1,1-Trichloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Cyclohexane	0.50	1.1	µg/L		0.50	1.0	µg/L		9.5
VOC	MW-21	Carbon tetrachloride	0.50	0.50	µg/L	UJ	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Benzene	0.50	0.50	µg/L	U	0.50	0.33	µg/L	LJ	41.0
VOC	MW-21	1,2-Dichloroethane	0.50	0.53	µg/L		0.50	0.48	µg/L	LJ	9.9
VOC	MW-21	Trichloroethene	0.50	2.3	µg/L	J^	0.50	2.2	µg/L		4.4
VOC	MW-21	1,2-Dichloropropane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Bromodichloromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	cis-1,3-Dichloropropene	0.50	0.50	µg/L	UJv	0.50	0.50	µg/L	U	0.0
VOC	MW-21	4-Methyl-2-pentanone	5.0	5.0	µg/L	U	5.0	5.0	µg/L	U	0.0
VOC	MW-21	Toluene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	trans-1,3-Dichloropropene	0.50	0.50	µg/L	UJv	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,1,2-Trichloroethane	0.50	0.50	µg/L	UJv	0.50	0.50	µg/L	U	0.0

EA Engineering, Science, and Technology, Inc.

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	MW-21	Tetrachloroethene	0.50	1.2	µg/L	J^	0.50	1.1	µg/L		8.7
VOC	MW-21	2-Hexanone	5.0	5.0	µg/L	U	5.0	5.0	µg/L	U	0.0
VOC	MW-21	Dibromochloromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Chlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Ethylbenzene	0.50	5.9	µg/L	J^	0.50	5.6	µg/L		5.2
VOC	MW-21	o-Xylene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	m,p-Xylene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Styrene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Bromoform	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Isopropylbenzene	0.50	2.0	µg/L	J^	0.50	1.9	µg/L		5.1
VOC	MW-21	1,1,2,2-Tetrachloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,3-Dichlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,4-Dichlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,2-Dichlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,2,4-Trichlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,2,3-Trichlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,3-Dichloropropane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	n-Butylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	sec-Butylbenzene	0.50	0.27	µg/L	LJ	0.50	0.50	µg/L	U	59.7
VOC	MW-21	tert-Butylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	2-Chlorotoluene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	4-Chlorotoluene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Dibromomethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,3,5-Trimethylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	2,2-Dichloropropane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,1-Dichloropropene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Hexachlorobutadiene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	p-Isopropyltoluene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Naphthalene	0.50	1.8	µg/L	UM	0.50	2.2	µg/L	UM	20.0
VOC	MW-21	n-Propylbenzene	0.50	0.50	µg/L	U	0.50	2.5	µg/L		133.3
VOC	MW-21	1,1,1,2-Tetrachloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	1,2,3-Trichloropropane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0

EA Engineering, Science, and Technology, Inc.

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	MW-21	1,2,4-Trimethylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Bromobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-21	Methylcyclohexane	5.0	120	µg/L		5.0	120	µg/L		0.0
VOC	MW-21	1,2-Dibromoethane	0.050	0.050	µg/L	U	0.050	0.050	µg/L	U	0.0
VOC	MW-21	1,2-Dibromo-3-chloropropane	0.050	0.050	µg/L	UJv	0.050	0.050	µg/L	UJv	0.0
VOC	MW-4	Dichlorodifluoromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Chloromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Vinyl chloride	0.50	0.50	µg/L	UJ	0.50	0.50	µg/L	UJ	0.0
VOC	MW-4	Bromomethane	0.50	0.50	µg/L	UJv	0.50	0.50	µg/L	UJv	0.0
VOC	MW-4	Chloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Trichlorofluoromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,1-Dichloroethene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Acetone	5.0	5.0	µg/L	U	5.0	5.0	µg/L	U	0.0
VOC	MW-4	Carbon Disulfide	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Methyl acetate	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Methylene chloride	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	trans-1,2-Dichloroethene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Methyl tert-butyl ether	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,1-Dichloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	cis-1,2-Dichloroethene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	2-Butanone	5.0	5.0	µg/L	U	5.0	5.0	µg/L	U	0.0
VOC	MW-4	Bromochloromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Chloroform	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,1,1-Trichloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Cyclohexane	0.50	3.5	µg/L		0.50	3.8	µg/L		8.2
VOC	MW-4	Carbon tetrachloride	0.50	0.50	µg/L	UJ	0.50	0.50	µg/L	UJ	0.0
VOC	MW-4	Benzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,2-Dichloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Trichloroethene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Methylcyclohexane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,2-Dichloropropane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	MW-4	Bromodichloromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	cis-1,3-Dichloropropene	0.50	0.50	µg/L	UJv	0.50	0.50	µg/L	UJv	0.0
VOC	MW-4	4-Methyl-2-pentanone	5.0	5.0	µg/L	U	5.0	5.0	µg/L	U	0.0
VOC	MW-4	Toluene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	trans-1,3-Dichloropropene	0.50	0.50	µg/L	UJv	0.50	0.50	µg/L	UJv	0.0
VOC	MW-4	1,1,2-Trichloroethane	0.50	0.50	µg/L	UJv	0.50	0.50	µg/L	UJv	0.0
VOC	MW-4	Tetrachloroethene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	2-Hexanone	5.0	6.1	µg/L		5.0	6.8	µg/L		10.9
VOC	MW-4	Dibromochloromethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Chlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Ethylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	o-Xylene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	m,p-Xylene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Styrene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Bromoform	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Isopropylbenzene	0.50	0.58	µg/L		0.50	0.67	µg/L		14.4
VOC	MW-4	1,1,2,2-Tetrachloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,3-Dichlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,4-Dichlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,2-Dichlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,2,4-Trichlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,2,3-Trichlorobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,3-Dichloropropane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	n-Butylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	sec-Butylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	tert-Butylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	2-Chlorotoluene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	4-Chlorotoluene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Dibromomethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,3,5-Trimethylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	2,2-Dichloropropane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,1-Dichloropropene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	MW-4	Hexachlorobutadiene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	p-Isopropyltoluene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Naphthalene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	n-Propylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,1,1,2-Tetrachloroethane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,2,3-Trichloropropane	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,2,4-Trimethylbenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	Bromobenzene	0.50	0.50	µg/L	U	0.50	0.50	µg/L	U	0.0
VOC	MW-4	1,2-Dibromoethane	0.050	0.050	µg/L	U	0.050	0.050	µg/L	U	0.0
VOC	MW-4	1,2-Dibromo-3-chloropropane	0.050	0.050	µg/L	UJv	0.050	0.050	µg/L	UJv	0.0
SVOC	MW-14	3,3,5-trimethylcyclohexanone	100	100	µg/L	U	100	100	µg/L	U	0.0
SVOC	MW-14	Aniline	100	100	µg/L	U	100	100	µg/L	U	0.0
SVOC	MW-14	Benzaldehyde	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Phenol	250	1200	µg/L		250	1000	µg/L		18.2
SVOC	MW-14	Bis(2-Chloroethyl)ether	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2-Chlorophenol	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2-Methylphenol	250	1200	µg/L		250	1000	µg/L		18.2
SVOC	MW-14	2,2'-Oxybis(1-chloropropane)	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Acetophenone	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	4-Methylphenol	250	830	µg/L		250	700	µg/L		17.0
SVOC	MW-14	N-Nitroso-di-n-propylamine	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Hexachloroethane	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Nitrobenzene	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Isophorone	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2-Nitrophenol	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2,4-Dimethylphenol	250	620	µg/L		250	530	µg/L		15.7
SVOC	MW-14	Bis(2-chloroethoxy)methane	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2,4-Dichlorophenol	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Naphthalene	13	240	µg/L		50	320	µg/L		28.6
SVOC	MW-14	4-Chloroaniline	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Hexachlorobutadiene	13	13	µg/L	U	50	50	µg/L	U	117.5
SVOC	MW-14	Caprolactam	50	50	µg/L	U	50	50	µg/L	U	0.0

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
SVOC	MW-14	4-Chloro-3-methylphenol	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2-Methylnaphthalene	50	83	µg/L		50	75	µg/L		10.1
SVOC	MW-14	Hexachlorocyclopentadiene	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2,4,6-Trichlorophenol	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2,4,5-Trichlorophenol	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	1,1'-Biphenyl	50	4.2	µg/L	LJ	50	4.8	µg/L	LJ	13.3
SVOC	MW-14	2-Chloronaphthalene	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2-Nitroaniline	100	100	µg/L	U	100	100	µg/L	U	0.0
SVOC	MW-14	Dimethylphthalate	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2,6-Dinitrotoluene	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Acenaphthylene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	3-Nitroaniline	100	100	µg/L	U	100	100	µg/L	U	0.0
SVOC	MW-14	Acenaphthene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	2,4-Dinitrophenol	100	100	µg/L	U	100	100	µg/L	U	0.0
SVOC	MW-14	4-Nitrophenol	100	100	µg/L	U	100	100	µg/L	U	0.0
SVOC	MW-14	Dibenzofuran	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	2,4-Dinitrotoluene	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Diethylphthalate	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Fluorene	1	0.49	µg/L	LJ	1.0	1.0	µg/L	U	68.5
SVOC	MW-14	4-Chlorophenyl-phenylether	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	4-Nitroaniline	100	100	µg/L	U	100	100	µg/L	U	0.0
SVOC	MW-14	4,6-Dinitro-2-methylphenol	100	100	µg/L	U	100	100	µg/L	U	0.0
SVOC	MW-14	N-Nitrosodiphenylamine	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	1,2,4,5-Tetrachlorobenzene	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	4-Bromophenyl-phenylether	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Hexachlorobenzene	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Atrazine	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Pentachlorophenol	2	2	µg/L	U	2	2	µg/L	U	0.0
SVOC	MW-14	Phenanthrene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Anthracene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Carbazole	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Di-n-butylphthalate	50	50	µg/L	U	50	50	µg/L	U	0.0

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
SVOC	MW-14	Fluoranthene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Pyrene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Butylbenzylphthalate	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	3,3'-Dichlorobenzidine	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Benzo(a)anthracene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Chrysene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Bis(2-ethylhexyl)phthalate	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Di-n-octylphthalate	50	50	µg/L	U	50	50	µg/L	U	0.0
SVOC	MW-14	Benzo(b)fluoranthene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Benzo(k)fluoranthene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Benzo(a)pyrene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Indeno(1,2,3-cd)pyrene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Dibenzo(a,h)anthracene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	Benzo(g,h,i)perylene	1.0	1.0	µg/L	U	1.0	1.0	µg/L	U	0.0
SVOC	MW-14	2,3,4,6-Tetrachlorophenol	50	50	µg/L	U	50	50	µg/L	U	0.0
Metals	MW-14	Aluminum	200	200	mg/L	U	200	200	mg/L	U	0.0
Metals	MW-14	Antimony	2.0	22.3	mg/L		2.0	20.8	mg/L		7.0
Metals	MW-14	Arsenic	1.0	374	mg/L		1.0	377	mg/L		0.8
Metals	MW-14	Barium	10.0	443	mg/L		10.0	422	mg/L		4.9
Metals	MW-14	Beryllium	1.0	1.0	mg/L	U	1.0	1.0	mg/L	U	0.0
Metals	MW-14	Cadmium	1.0	1.0	mg/L	U	1.0	1.0	mg/L	U	0.0
Metals	MW-14	Calcium	5000	120000	mg/L		5000	117000	mg/L		2.5
Metals	MW-14	Chromium	2.0	0.56	mg/L	LJ	2.0	0.52	mg/L	LJ	7.4
Metals	MW-14	Cobalt	1.0	7.7	mg/L		1.0	7.8	mg/L		1.3
Metals	MW-14	Copper	2.0	0.64	mg/L	LJ	2.0	0.60	mg/L	LJ	6.5
Metals	MW-14	Iron	100	13300	mg/L		100	12700	mg/L		4.6
Metals	MW-14	Lead	1.0	8.8	mg/L		1.0	8.4	mg/L		4.7
Metals	MW-14	Magnesium	5000	14300	mg/L		5000	13900	mg/L		2.8
Metals	MW-14	Manganese	2.0	1130	mg/L		2.0	1170	mg/L		3.5
Metals	MW-14	Mercury	0.20	0.044	mg/L	LJ	0.20	0.056	mg/L	LJ	24.0
Metals	MW-14	Nickel	1.0	7.2	mg/L		1.0	7.4	mg/L		2.7
Metals	MW-14	Potassium	5000	1060	mg/L	LJ	5000	5000	mg/L	U	130.0

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
Metals	MW-14	Selenium	5.0	17.4	mg/L		5.0	16.2	mg/L		7.1
Metals	MW-14	Silver	1.0	1.0	mg/L	U	1.0	1.0	mg/L	U	0.0
Metals	MW-14	Sodium	5000	222000	mg/L		5000	217000	mg/L		2.3
Metals	MW-14	Thallium	1.0	1.0	mg/L	U	1.0	1.0	mg/L	U	0.0
Metals	MW-14	Vanadium	5.0	5.0	mg/L	U	5.0	5.0	mg/L	U	0.0
Metals	MW-14	Zinc	2.0	2.4	mg/L		2.0	2.7	mg/L		11.8
VOC	SG-19	Acetone	8.1	70	ug/m3	J	59	110	ug/m3		44.4
VOC	SG-19	Carbon disulfide	7.8	7.8	ug/m3	U	1	1	ug/m3	U	154.5
VOC	SG-19	Carbon tetrachloride	2.1	2.1	ug/m3	U	2	2	ug/m3	U	4.9
VOC	SG-19	Chlorobenzene	12	12	ug/m3	U	12	12	ug/m3	U	0.0
VOC	SG-19	Chlorodibromomethane	2.9	2.9	ug/m3	U	2.8	2.8	ug/m3	U	3.5
VOC	SG-19	Chloroethane	0.9	0.9	ug/m3	U	0.86	0.86	ug/m3	U	4.5
VOC	SG-19	Chloroform	0.33	0.33	ug/m3	U	0.32	0.32	ug/m3	U	3.1
VOC	SG-19	Chloromethane	0.7	0.7	ug/m3	U	0.67	0.67	ug/m3	U	4.4
VOC	SG-19	Cyclohexane	1.2	30	ug/m3		1.1	11	ug/m3		92.7
VOC	SG-19	1,2-Dibromoethane	2.6	2.6	ug/m3	U	2.5	2.5	ug/m3	U	3.9
VOC	SG-19	1,2-Dichlorobenzene	2	2	ug/m3	U	2	2	ug/m3	U	0.0
VOC	SG-19	Acrolein	1.6	1.6	ug/m3	U	1.5	1.5	ug/m3	U	6.5
VOC	SG-19	1,3-Dichlorobenzene	2	2	ug/m3	U	2	2	ug/m3	U	0.0
VOC	SG-19	1,4-Dichlorobenzene	2	2	ug/m3	U	2	2	ug/m3	U	0.0
VOC	SG-19	Dichlorodifluoromethane	1.7	1.7	ug/m3	U	1.6	1.6	ug/m3	U	6.1
VOC	SG-19	1,1-Dichloroethane	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	1,2-Dichloroethane	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	1,1-Dichloroethene	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	cis-1,2-Dichloroethene	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	trans-1,2-Dichloroethene	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	1,2-Dichloropropane	1.6	1.6	ug/m3	U	580	580	ug/m3	U	198.9
VOC	SG-19	cis-1,3-Dichloropropene	1.5	1.5	ug/m3	U	1.5	1.5	ug/m3	U	0.0
VOC	SG-19	Benzene	0.22	11	ug/m3		0.21	1.9	ug/m3		141.1
VOC	SG-19	trans-1,3-Dichloropropene	1.5	1.5	ug/m3	U	1.5	1.5	ug/m3	U	0.0
VOC	SG-19	1,2-Dichloro-1,1,2,2-tetrafluoroethane	2.4	2.4	ug/m3	U	2.3	2.3	ug/m3	U	4.3
VOC	SG-19	1,4-Dioxane	4.9	4.9	ug/m3	U	4.7	4.7	ug/m3	U	4.2
VOC	SG-19	Ethyl acetate	2.5	2.5	ug/m3	U	2.3	2.3	ug/m3	U	8.3

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	SG-19	Ethylbenzene	1.5	1.5	ug/m3	U	1.4	1.4	ug/m3	U	6.9
VOC	SG-19	1-Ethyl-4-methylbenzene	1.7	1.7	ug/m3	U	1.6	1.6	ug/m3	U	6.1
VOC	SG-19	n-Heptane	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	Hexachlorobutadiene	3.6	3.6	ug/m3	U	3.5	3.5	ug/m3	U	2.8
VOC	SG-19	n-Hexane	1.2	1.7	ug/m3		1.1	2.6	ug/m3		41.9
VOC	SG-19	Benzyl chloride	3.5	3.5	ug/m3	U	3.4	3.4	ug/m3	U	2.9
VOC	SG-19	2-Hexanone	2.8	2.8	ug/m3	U	2.7	2.7	ug/m3	U	3.6
VOC	SG-19	Isopropyl alcohol	6100	17000	ug/m3		6100	18000	ug/m3		5.7
VOC	SG-19	Methylene chloride	8.7	8.7	ug/m3	U	8.7	8.7	ug/m3	U	0.0
VOC	SG-19	4-Methyl-2-pentanone	2.8	2.8	ug/m3	U	2.7	2.7	ug/m3	U	3.6
VOC	SG-19	Methyl methacrylate	1.4	1.4	ug/m3	U	1.3	1.3	ug/m3	U	7.4
VOC	SG-19	Methyl tertiary-butyl ether	1.2	1.2	ug/m3	U	1.2	1.2	ug/m3	U	0.0
VOC	SG-19	Propene	0.59	1.5	ug/m3		0.56	0.56	ug/m3	U	91.3
VOC	SG-19	Styrene	1.5	1.5	ug/m3	U	1.4	1.4	ug/m3	U	6.9
VOC	SG-19	1,1,2,2-Tetrachloroethane	2.3	2.3	ug/m3	U	2.2	2.2	ug/m3	U	4.4
VOC	SG-19	1,3-Butadiene	0.75	0.75	ug/m3	U	0.72	0.72	ug/m3	U	4.1
VOC	SG-19	Tetrachloroethene	0.46	0.46	ug/m3	U	0.44	0.44	ug/m3	U	4.4
VOC	SG-19	Tetrahydrofuran	1	1	ug/m3	U	0.96	0.96	ug/m3	U	4.1
VOC	SG-19	Toluene	1.3	3.2	ug/m3		1.2	3.6	ug/m3		11.8
VOC	SG-19	1,2,4-Trichlorobenzene	2.5	2.5	ug/m3	U	2.4	2.4	ug/m3	U	4.1
VOC	SG-19	1,1,1-Trichloroethane	1.9	1.9	ug/m3	U	1.8	1.8	ug/m3	U	5.4
VOC	SG-19	1,1,2-Trichloroethane	1.9	1.9	ug/m3	U	1.8	1.8	ug/m3	U	5.4
VOC	SG-19	Trichloroethene	0.37	0.37	ug/m3	U	0.35	0.35	ug/m3	U	5.6
VOC	SG-19	Trichlorofluoromethane	1.9	1.9	ug/m3	U	1.8	1.8	ug/m3	U	5.4
VOC	SG-19	1,1,2-Trichloro-1,2,2-trifluoroethane	2.6	2.6	ug/m3	U	2.5	2.5	ug/m3	U	3.9
VOC	SG-19	1,2,4-Trimethylbenzene	1.7	2.9	ug/m3		1.6	2.4	ug/m3		18.9
VOC	SG-19	1,3,5-Trimethylbenzene	1.7	1.7	ug/m3	U	1.6	1.6	ug/m3	U	6.1
VOC	SG-19	Vinyl acetate	2.4	2.4	ug/m3	U	2.3	2.3	ug/m3	U	4.3
VOC	SG-19	Vinyl chloride	0.17	0.17	ug/m3	U	0.17	0.27	ug/m3		45.5
VOC	SG-19	meta-/para-Xylene	1.5	3	ug/m3		1.4	2.7	ug/m3		10.5
VOC	SG-19	ortho-Xylene	1.5	1.5	ug/m3	U	1.4	1.4	ug/m3	U	6.9
VOC	SG-19	Bromodichloromethane	2.3	2.3	ug/m3	U	2.2	2.2	ug/m3	U	4.4
VOC	SG-19	Bromoform	3.5	3.5	ug/m3	U	3.4	3.4	ug/m3	U	2.9

Table A-3 Relative Percent Difference Calculations for EPA Field Duplicates

Analysis	Sample ID	Analyte	CRQL	RESULT	Units	Qualifier	CRQL	RESULT	Units	Qualifier	RPD
VOC	SG-19	Bromomethane	1.3	1.3	ug/m3	U	1.3	1.3	ug/m3	U	0.0
<p>NOTE:</p> <p>CRQL = Contract-required quantitation limit</p> <p>RPD = Relative percent difference</p> <p><u>CLP Laboratory Qualifiers:</u></p> <p>J = Estimated value.</p> <p>v = Low biased. Actual concentration may be higher than the concentration reported.</p> <p>^ = High biased. Actual concentration may be lower than the concentration reported.</p> <p>L = Reported concentration is below the CRQL.</p> <p>M = Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination</p> <p>U = Not detected at reported quantitation limit.</p>											

Table A-4 Mean Relative Percent Difference (RPDs) of Detected Results

ANALYTE GROUP	ANALYTE	Mean RPD
INORGANICS	Arsenic	8
INORGANICS	Barium	3
INORGANICS	Cobalt	8
INORGANICS	Copper	72
INORGANICS	Lead	27
INORGANICS	Manganese	7
INORGANICS	Nickel	18
INORGANICS	Zinc	90
POLYCYCLIC AROMATIC HYDROCARBONS	2-Methylnaphthalene	20
SEMIVOLATILE ORGANIC COMPOUNDS	2,4-Dimethylphenol	15
SEMIVOLATILE ORGANIC COMPOUNDS	Phenol	129
VOLATILE ORGANIC COMPOUNDS	1,2,4-Trimethylbenzene	23
VOLATILE ORGANIC COMPOUNDS	1,2-Dichloroethane	30
VOLATILE ORGANIC COMPOUNDS	1,3,5-Trimethylbenzene	12
VOLATILE ORGANIC COMPOUNDS	Benzene	10
VOLATILE ORGANIC COMPOUNDS	cis-1,2-Dichloroethene	5
VOLATILE ORGANIC COMPOUNDS	Ethylbenzene	18
VOLATILE ORGANIC COMPOUNDS	Isopropylbenzene	24
VOLATILE ORGANIC COMPOUNDS	Methyl tert-butyl ether	26
VOLATILE ORGANIC COMPOUNDS	Naphthalene	32
VOLATILE ORGANIC COMPOUNDS	n-Propylbenzene	29
VOLATILE ORGANIC COMPOUNDS	sec-Butylbenzene	4
VOLATILE ORGANIC COMPOUNDS	Tetrachloroethene	5
VOLATILE ORGANIC COMPOUNDS	Toluene	11
VOLATILE ORGANIC COMPOUNDS	Trichloroethene	3

Note:

Boldface results indicate RPD > 50%.

Appendix B

Laboratory Analytical Reports and Case Narratives

(Electronically on CD)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Laboratory

Environmental Services Branch
10625 Fallstone Road, Houston, TX 77099
Phone: (281)983-2100 Fax: (281)983-2248

Final Analytical Report

Site Name -----R & H Oil / Tropicana

Sample Collection Date(s)-- 05/08/12 - 05/09/12

Contact----- Chris Villarreal (6SF-RA)

Report Date----- 07/30/12

Project #----- 12SF105

Work Order(s)----- 1205004

Analyses included in this report:

Air TO-15(SIM/Scan) dual units

Report Narrative

The "B" flag for trichloroethene in samples 1205004-05 and 1205004-07 are required because the concentrations found in these samples were less than ten times the concentration found in the associated analysis blank.

The "J" flag for acetone in sample 1205004-02 is required because its concentration, 21.7 ppbv, exceeded the upper calibration limit of 20.0 ppbv. This is a small amount over the limit and no bias is expected.

Two samples, 1205004-02 and 1205004-03, had so much interference that substantial dilutions had to be made in order to analyze them.

Two samples, 1205004-01 and 1205004-05, arrived in the lab with so little sample, as indicated by their initial pressures, that a dilution had to be performed before analysis.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of the sample results. The results apply only to the samples tested. This final report should only be reproduced in full.

Reporting limits are adjusted for sample size and matrix interference.

Report Approvals:

Richard McMillin
Region 6 Laboratory Manager

David Neleigh
Region 6 Laboratory Branch Chief



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 6 Environmental Services Branch Laboratory

10625 Fallstone Road
Houston, Texas 77099

Sample Receipt and Disposal

Site Name: R & H Oil / Tropicana

Project Number: 12SF105

Data Management Coordinator: Christy Warren

Data Management Coordinator Signature

Date

Date Transmitted: ____/____/____

Please have the U.S. EPA Project Manager/Officer call the Data Management Coordinator at 3-2137 for any comments or questions.

Please sign and date this form below and return it with any comments to:

Christy Warren
Data Management Coordinator
Region 6 Laboratory
6MD-HS

Received by and Date

Comments:

The laboratory routinely disposes of samples 90 days after all analyses have been completed. If you have a need to hold these samples in custody longer than 90 days, please sign below.

Signature

Date

Please provide a reason for holding:



Environmental Protection Agency
Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

ANALYTICAL REPORT FOR SAMPLES

Station ID	Laboratory ID	Sample Type	Date Collected	Date Received
SG-14	1205004-01	air	5/8/12 17:16	05/14/12 09:15
SG-19	1205004-02	air	5/9/12 18:43	05/14/12 09:15
SG-19-D	1205004-03	air	5/9/12 18:43	05/14/12 09:15
SG-21	1205004-04	air	5/8/12 14:29	05/14/12 09:15
SG-22	1205004-05	air	5/8/12 15:29	05/14/12 09:15
SS-2	1205004-06	air	5/8/12 16:19	05/14/12 09:15
TB-1-Air	1205004-07	air	5/8/12 18:00	05/14/12 09:15



Environmental Protection Agency
Region 6 Laboratory

10625 Fallstone Road, Houston, TX 77099
Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-01

Station ID: SG-14

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 1.9 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	3.63		90.8	70-130	05/14/12	05/27/12

Targets

Analyte (CAS Number)	Result ppbv	Result µg/m ³	Analyte Qualifiers	Reporting Limit ppbv	Reporting Limit µg/m ³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		12,500	29,800	5000	05/14/12	05/27/12
Acrolein (107-02-8)	U	U		2,500	5,740	"	"	"
Benzene (71-43-2)	136,000	435,000		2,500	8,000	50000	"	"
Benzyl chloride (100-44-7)	U	U		2,500	13,000	5000	"	"
1,3-Butadiene (106-99-0)	U	U		1,250	2,770	"	"	"
2-Butanone (78-93-3)	U	U		5,000	14,800	"	"	"
Bromodichloromethane (75-27-4)	U	U		1,250	8,390	"	"	"
Bromoform (75-25-2)	U	U		1,250	12,900	"	"	"
Bromomethane (74-83-9)	U	U		1,250	4,860	"	"	"
Carbon disulfide (75-15-0)	U	U		1,250	3,900	"	"	"
Carbon tetrachloride (56-23-5)	U	U		1,250	7,880	"	"	"
Chlorobenzene (108-90-7)	U	U		1,250	5,770	"	"	"
Chlorodibromomethane (124-48-1)	U	U		1,250	10,700	"	"	"
Chloroethane (75-00-3)	U	U		1,250	3,310	"	"	"
Chloroform (67-66-3)	U	U		250	1,220	"	"	"
Chloromethane (74-87-3)	U	U		1,250	2,590	"	"	"
Cyclohexane (110-82-7)	562,000	1.94E6		12,500	43,100	50000	"	"
1,2-Dibromoethane (106-93-4)	U	U		1,250	9,630	5000	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		1,250	7,530	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		1,250	7,530	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		1,250	7,530	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		1,250	6,190	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		1,250	5,070	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		1,250	5,070	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		1,250	4,970	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		1,250	4,970	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		1,250	4,970	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		1,250	5,790	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-01

Station ID: SG-14

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 1.9 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		1,250	5,680	5000	05/14/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		1,250	5,680	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		1,250	8,760	"	"	"
1,4-Dioxane (123-91-1)	U	U		5,000	18,100	"	"	"
Ethyl acetate (141-78-6)	U	U		2,500	9,030	"	"	"
Ethyl alcohol (64-17-5)	U	U		5,000	9,440	"	"	"
Ethylbenzene (100-41-4)	U	U		1,250	5,430	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		1,250	6,150	"	"	"
n-Heptane (142-82-5)	2,550	10,500		1,250	5,130	"	"	05/27/12
Hexachlorobutadiene (87-68-3)	U	U		1,250	13,400	"	"	05/27/12
n-Hexane (110-54-3)	35,200	124,000		1,250	4,410	"	"	05/27/12
2-Hexanone (591-78-6)	U	U		2,500	10,300	"	"	05/27/12
Isopropyl alcohol (67-63-0)	U	U		25,000	61,600	"	"	"
Methylene chloride (75-09-2)	U	U		1,250	4,350	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		2,500	10,300	"	"	"
Methyl methacrylate (80-62-6)	U	U		1,250	5,130	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		1,250	4,510	"	"	"
Propene (115-07-1)	19,700	34,000		1,250	2,160	"	"	05/27/12
Styrene (100-42-5)	U	U		1,250	5,340	"	"	05/27/12
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		1,250	8,600	"	"	"
Tetrachloroethene (127-18-4)	U	U		250	1,700	"	"	"
Tetrahydrofuran (109-99-9)	U	U		1,250	3,690	"	"	"
Toluene (108-88-3)	U	U		1,250	4,720	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		1,250	9,300	"	"	05/27/12
1,1,1-Trichloroethane (71-55-6)	U	U		1,250	6,840	"	"	05/27/12
1,1,2-Trichloroethane (79-00-5)	U	U		1,250	6,840	"	"	"
Trichloroethene (79-01-6)	U	U		250	1,350	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		1,250	7,040	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		1,250	9,600	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	4,000	19,700		1,250	6,160	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		1,250	6,160	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-01

Station ID: SG-14

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 1.9 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		2,500	8,820	5000	05/14/12	05/27/12
Vinyl chloride (75-01-4)	U	U		250	640	"	"	"
meta-/para-Xylene (na)	3,350	14,600		1,250	5,440	"	"	05/27/12
ortho-Xylene (95-47-6)	U	U		1,250	5,430	"	"	05/27/12

F.



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Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02

Station ID: SG-19

Batch: B2E1504

Date Collected: 05/09/12

Initial Pressure: 11.5 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	3.96		99.0	70-130	05/15/12	05/26/12

Targets

Analyte (CAS Number)	Result ppbv	Result µg/m³	Analyte Qualifiers	Reporting Limit ppbv	Reporting Limit µg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	29.6	70.3	J	3.41	8.11	1.362398	05/15/12	05/26/12
Acrolein (107-02-8)	U	U		0.68	1.57	"	"	"
Benzene (71-43-2)	3.41	10.9		0.07	0.22	"	"	"
Benzyl chloride (100-44-7)	U	U		0.68	3.53	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.34	0.76	"	"	"
2-Butanone (78-93-3)	5.18	15.3		1.36	4.02	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.34	2.29	"	"	"
Bromoform (75-25-2)	U	U		0.34	3.53	"	"	"
Bromomethane (74-83-9)	U	U		0.34	1.33	"	"	"
Carbon disulfide (75-15-0)	U	U		2.50	7.80	10	"	05/26/12
Carbon tetrachloride (56-23-5)	U	U		0.34	2.15	1.362398	"	05/26/12
Chlorobenzene (108-90-7)	U	U		2.50	11.5	10	"	05/26/12
Chlorodibromomethane (124-48-1)	U	U		0.34	2.91	1.362398	"	05/26/12
Chloroethane (75-00-3)	U	U		0.34	0.90	"	"	"
Chloroform (67-66-3)	U	U		0.07	0.33	"	"	"
Chloromethane (74-87-3)	U	U		0.34	0.70	"	"	"
Cyclohexane (110-82-7)	8.72	30.1		0.34	1.18	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.34	2.62	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.34	2.05	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.34	2.05	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.34	2.05	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.34	1.69	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.34	1.38	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.34	1.38	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.34	1.35	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.34	1.35	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.34	1.35	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.34	1.58	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02

Station ID: SG-19

Batch: B2E1504

Date Collected: 05/09/12

Initial Pressure: 11.5 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.34	1.55	1.362398	05/15/12	05/26/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.34	1.55	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.34	2.39	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.36	4.92	"	"	"
Ethyl acetate (141-78-6)	U	U		0.68	2.46	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.36	2.57	"	"	"
Ethylbenzene (100-41-4)	U	U		0.34	1.48	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.34	1.68	"	"	"
n-Heptane (142-82-5)	U	U		0.34	1.40	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.34	3.64	"	"	"
n-Hexane (110-54-3)	0.48	1.68		0.34	1.20	"	"	"
2-Hexanone (591-78-6)	U	U		0.68	2.80	"	"	"
Isopropyl alcohol (67-63-0)	6,950	17,100		2,500	6,160	500	"	05/27/12
Methylene chloride (75-09-2)	U	U		2.50	8.70	10	"	05/26/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.68	2.79	1.362398	"	05/26/12
Methyl methacrylate (80-62-6)	U	U		0.34	1.40	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.34	1.23	"	"	"
Propene (115-07-1)	0.86	1.48		0.34	0.59	"	"	"
Styrene (100-42-5)	U	U		0.34	1.45	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.34	2.34	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.07	0.46	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.34	1.01	"	"	"
Toluene (108-88-3)	0.86	3.24		0.34	1.29	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.34	2.53	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.34	1.86	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.34	1.86	"	"	"
Trichloroethene (79-01-6)	U	U		0.07	0.37	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.34	1.92	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.34	2.62	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.59	2.89		0.34	1.68	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.34	1.68	"	"	"
Vinyl acetate (108-05-4)	U	U		0.68	2.40	"	"	"



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Region 6 Laboratory

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-02

Station ID: SG-19

Batch: B2E1504

Date Collected: 05/09/12

Initial Pressure: 11.5 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl chloride (75-01-4)	U	U		0.07	0.17	1.362398	05/15/12	05/26/12
meta-/para-Xylene (na)	0.68	2.96		0.34	1.48	"	"	"
ortho-Xylene (95-47-6)	U	U		0.34	1.48	"	"	"

F.



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03

Station ID: SG-19-D

Batch: B2E1504

Date Collected: 05/09/12

Initial Pressure: 11.5 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	4.11		103	70-130	05/15/12	05/26/12

Targets

Analyte (CAS Number)	Result ppbv	Result µg/m³	Analyte Qualifiers	Reporting Limit ppbv	Reporting Limit µg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	47.4	113		25.0	59.5	10	05/15/12	05/26/12
Acrolein (107-02-8)	U	U		0.65	1.50	1.302083	"	05/26/12
Benzene (71-43-2)	0.59	1.88		0.07	0.21	"	"	"
Benzyl chloride (100-44-7)	U	U		0.65	3.38	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.33	0.72	"	"	"
2-Butanone (78-93-3)	8.53	25.2		1.30	3.85	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.33	2.19	"	"	"
Bromoform (75-25-2)	U	U		0.33	3.37	"	"	"
Bromomethane (74-83-9)	U	U		0.33	1.27	"	"	"
Carbon disulfide (75-15-0)	U	U		0.33	1.02	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.33	2.05	"	"	"
Chlorobenzene (108-90-7)	U	U		2.50	11.5	10	"	05/26/12
Chlorodibromomethane (124-48-1)	U	U		0.33	2.78	1.302083	"	05/26/12
Chloroethane (75-00-3)	U	U		0.33	0.86	"	"	"
Chloroform (67-66-3)	U	U		0.07	0.32	"	"	"
Chloromethane (74-87-3)	U	U		0.33	0.67	"	"	"
Cyclohexane (110-82-7)	3.32	11.5		0.33	1.12	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.33	2.51	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.33	1.96	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.33	1.96	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.33	1.96	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.33	1.61	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.33	1.32	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.33	1.32	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.33	1.29	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.33	1.29	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.33	1.29	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		125	579	500	"	05/27/12



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03

Station ID: SG-19-D

Batch: B2E1504
Sample Type: air

Date Collected: 05/09/12

Initial Pressure: 11.5 psia
Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.33	1.48	1.302083	05/15/12	05/26/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.33	1.48	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.33	2.28	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.30	4.70	"	"	"
Ethyl acetate (141-78-6)	U	U		0.65	2.35	"	"	"
Ethyl alcohol (64-17-5)	U	U		500	944	500	"	05/27/12
Ethylbenzene (100-41-4)	U	U		0.33	1.42	1.302083	"	05/26/12
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.33	1.60	"	"	"
n-Heptane (142-82-5)	U	U		0.33	1.34	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.33	3.48	"	"	"
n-Hexane (110-54-3)	0.74	2.62		0.33	1.15	"	"	"
2-Hexanone (591-78-6)	U	U		0.65	2.67	"	"	"
Isopropyl alcohol (67-63-0)	7,220	17,800		2,500	6,160	500	"	05/27/12
Methylene chloride (75-09-2)	U	U		2.50	8.70	10	"	05/26/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.65	2.67	1.302083	"	05/26/12
Methyl methacrylate (80-62-6)	U	U		0.33	1.34	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.33	1.18	"	"	"
Propene (115-07-1)	U	U		0.33	0.56	"	"	"
Styrene (100-42-5)	U	U		0.33	1.39	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.33	2.24	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.07	0.44	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.33	0.96	"	"	"
Toluene (108-88-3)	0.95	3.59		0.33	1.23	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.33	2.42	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.33	1.78	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.33	1.78	"	"	"
Trichloroethene (79-01-6)	U	U		0.07	0.35	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.33	1.83	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.33	2.50	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.48	2.37		0.33	1.60	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.33	1.60	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-03

Station ID: SG-19-D

Batch: B2E1504

Date Collected: 05/09/12

Initial Pressure: 11.5 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		0.65	2.30	1.302083	05/15/12	05/26/12
Vinyl chloride (75-01-4)	0.10	0.27		0.07	0.17	"	"	"
meta-/para-Xylene (na)	0.62	2.72		0.33	1.42	"	"	"
ortho-Xylene (95-47-6)	U	U		0.33	1.42	"	"	"

F.



Environmental Protection Agency
Region 6 Laboratory

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04

Station ID: SG-21

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.4 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	4.13		103	70-130	05/15/12	05/27/12

Targets

Analyte (CAS Number)	Result ppbv	Result µg/m³	Analyte Qualifiers	Reporting Limit ppbv	Reporting Limit µg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		25.0	59.5	10	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		5.00	11.5	"	"	"
Benzene (71-43-2)	18.9	60.5		0.50	1.60	"	"	"
Benzyl chloride (100-44-7)	U	U		5.00	25.9	"	"	"
1,3-Butadiene (106-99-0)	U	U		2.50	5.54	"	"	"
2-Butanone (78-93-3)	U	U		10.0	29.5	"	"	"
Bromodichloromethane (75-27-4)	U	U		2.50	16.8	"	"	"
Bromoform (75-25-2)	U	U		2.50	25.9	"	"	"
Bromomethane (74-83-9)	U	U		2.50	9.73	"	"	"
Carbon disulfide (75-15-0)	5.60	17.5		2.50	7.80	"	"	"
Carbon tetrachloride (56-23-5)	U	U		2.50	15.8	"	"	"
Chlorobenzene (108-90-7)	U	U		2.50	11.5	"	"	"
Chlorodibromomethane (124-48-1)	U	U		2.50	21.3	"	"	"
Chloroethane (75-00-3)	U	U		2.50	6.61	"	"	"
Chloroform (67-66-3)	U	U		0.50	2.45	"	"	"
Chloromethane (74-87-3)	U	U		2.50	5.17	"	"	"
Cyclohexane (110-82-7)	54.9	189		2.50	8.63	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		2.50	19.3	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		2.50	15.1	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		2.50	15.1	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		2.50	15.1	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		2.50	12.4	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		2.50	10.1	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		2.50	10.1	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		2.50	9.93	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		2.50	9.93	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		2.50	9.93	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		2.50	11.6	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04

Station ID: SG-21

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.4 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		2.50	11.4	10	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		2.50	11.4	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		2.50	17.5	"	"	"
1,4-Dioxane (123-91-1)	U	U		10.0	36.1	"	"	"
Ethyl acetate (141-78-6)	U	U		5.00	18.1	"	"	"
Ethyl alcohol (64-17-5)	U	U		10.0	18.9	"	"	"
Ethylbenzene (100-41-4)	9.80	42.6		2.50	10.9	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		2.50	12.3	"	"	"
n-Heptane (142-82-5)	U	U		2.50	10.3	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		2.50	26.7	"	"	"
n-Hexane (110-54-3)	U	U		2.50	8.82	"	"	"
2-Hexanone (591-78-6)	U	U		5.00	20.5	"	"	"
Isopropyl alcohol (67-63-0)	135	333		50.0	123	"	"	"
Methylene chloride (75-09-2)	U	U		2.50	8.70	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		5.00	20.5	"	"	"
Methyl methacrylate (80-62-6)	U	U		2.50	10.3	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		2.50	9.03	"	"	"
Propene (115-07-1)	9.20	15.9		2.50	4.31	"	"	"
Styrene (100-42-5)	U	U		2.50	10.7	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		2.50	17.2	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.50	3.40	"	"	"
Tetrahydrofuran (109-99-9)	U	U		2.50	7.38	"	"	"
Toluene (108-88-3)	5.40	20.4		2.50	9.44	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		2.50	18.6	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		2.50	13.7	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		2.50	13.7	"	"	"
Trichloroethene (79-01-6)	U	U		0.50	2.69	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		2.50	14.1	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		2.50	19.2	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		2.50	12.3	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		2.50	12.3	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-04

Station ID: SG-21

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.4 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		5.00	17.6	10	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.50	1.28	"	"	"
meta-/para-Xylene (na)	2.80	12.2		2.50	10.9	"	"	"
ortho-Xylene (95-47-6)	U	U		2.50	10.9	"	"	"

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05

Station ID: SG-22

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 8.5 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	3.61		90.2	70-130	05/14/12	05/27/12

Targets

Analyte (CAS Number)	Result ppbv µg/m³		Analyte Qualifiers	Reporting Limit ppbv µg/m³		Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		2.50	5.95	1	05/14/12	05/27/12
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"
Benzene (71-43-2)	0.06	0.19		0.05	0.16	"	"	"
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"
2-Butanone (78-93-3)	U	U		1.00	2.95	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"
Chloroform (67-66-3)	U	U		0.05	0.24	"	"	"
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.25	1.51	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.25	1.51	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05

Station ID: SG-22

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 8.5 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.25	1.14	1	05/14/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.25	1.14	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.25	1.75	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	U	U		5.00	12.3	"	"	"
Methylene chloride (75-09-2)	U	U		0.25	0.87	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	U	U		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	U	U		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	0.06	0.32	B	0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-05

Station ID: SG-22

Batch: B2E1401

Date Collected: 05/08/12

Initial Pressure: 8.5 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/14/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	U	U		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"

F.



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06

Station ID: SS-2

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.8 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	3.73		93.2	70-130	05/15/12	05/27/12

Targets

Analyte (CAS Number)	Result ppbv	Result µg/m³	Analyte Qualifiers	Reporting Limit ppbv	Reporting Limit µg/m³	Dilution	Prepared	Analyzed
Acetone (67-64-1)	3.11	7.40		2.50	5.95	1	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"
Benzene (71-43-2)	0.10	0.32		0.05	0.16	"	"	"
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"
2-Butanone (78-93-3)	4.17	12.3		1.00	2.95	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"
Chloroform (67-66-3)	U	U		0.05	0.24	"	"	"
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"
1,3-Dichlorobenzene (541-73-1)	0.48	2.89		0.25	1.51	"	"	"
1,4-Dichlorobenzene (106-46-7)	0.29	1.75		0.25	1.51	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06

Station ID: SS-2

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.8 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.25	1.14	1	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.25	1.14	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.25	1.75	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	65.3	161		25.0	61.6	5	"	05/27/12
Methylene chloride (75-09-2)	U	U		0.25	0.87	1	"	05/27/12
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	0.07	0.48		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	0.41	1.55		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	U	U		0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	0.42	2.07		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"



Environmental Protection Agency
Region 6 Laboratory

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-06

Station ID: SS-2

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 11.8 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	0.39	1.70		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"

F.



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07

Station ID: TB-1-Air

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 12.9 psia

Sample Type: air

Sample Qualifiers:

Surrogates

Analyte	Result ppbv	Analyte Qualifiers	%Recovery	%Recovery Limits	Prepared	Analyzed
<i>Surr: 4-Bromofluorobenzene</i>	3.62		90.5	70-130	05/15/12	05/27/12

Targets

Analyte (CAS Number)	Result ppbv µg/m³		Analyte Qualifiers	Reporting Limit ppbv µg/m³		Dilution	Prepared	Analyzed
Acetone (67-64-1)	U	U		2.50	5.95	1	05/15/12	05/27/12
Acrolein (107-02-8)	U	U		0.50	1.15	"	"	"
Benzene (71-43-2)	0.10	0.32		0.05	0.16	"	"	"
Benzyl chloride (100-44-7)	U	U		0.50	2.59	"	"	"
1,3-Butadiene (106-99-0)	U	U		0.25	0.55	"	"	"
2-Butanone (78-93-3)	U	U		1.00	2.95	"	"	"
Bromodichloromethane (75-27-4)	U	U		0.25	1.68	"	"	"
Bromoform (75-25-2)	U	U		0.25	2.59	"	"	"
Bromomethane (74-83-9)	U	U		0.25	0.97	"	"	"
Carbon disulfide (75-15-0)	U	U		0.25	0.78	"	"	"
Carbon tetrachloride (56-23-5)	U	U		0.25	1.58	"	"	"
Chlorobenzene (108-90-7)	U	U		0.25	1.15	"	"	"
Chlorodibromomethane (124-48-1)	U	U		0.25	2.13	"	"	"
Chloroethane (75-00-3)	U	U		0.25	0.66	"	"	"
Chloroform (67-66-3)	0.09	0.44		0.05	0.24	"	"	"
Chloromethane (74-87-3)	U	U		0.25	0.52	"	"	"
Cyclohexane (110-82-7)	U	U		0.25	0.86	"	"	"
1,2-Dibromoethane (106-93-4)	U	U		0.25	1.93	"	"	"
1,2-Dichlorobenzene (95-50-1)	U	U		0.25	1.51	"	"	"
1,3-Dichlorobenzene (541-73-1)	U	U		0.25	1.51	"	"	"
1,4-Dichlorobenzene (106-46-7)	U	U		0.25	1.51	"	"	"
Dichlorodifluoromethane (75-71-8)	U	U		0.25	1.24	"	"	"
1,1-Dichloroethane (75-34-3)	U	U		0.25	1.01	"	"	"
1,2-Dichloroethane (107-06-2)	U	U		0.25	1.01	"	"	"
1,1-Dichloroethene (75-35-4)	U	U		0.25	0.99	"	"	"
cis-1,2-Dichloroethene (156-59-2)	U	U		0.25	0.99	"	"	"
trans-1,2-Dichloroethene (156-60-5)	U	U		0.25	0.99	"	"	"
1,2-Dichloropropane (78-87-5)	U	U		0.25	1.16	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07

Station ID: TB-1-Air

Batch: B2E1504
Sample Type: air

Date Collected: 05/08/12

Initial Pressure: 12.9 psia
Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
cis-1,3-Dichloropropene (10061-01-5)	U	U		0.25	1.14	1	05/15/12	05/27/12
trans-1,3-Dichloropropene (10061-02-6)	U	U		0.25	1.14	"	"	"
1,2-Dichloro-1,1,2,2-tetrafluoroethane (76-14-2)	U	U		0.25	1.75	"	"	"
1,4-Dioxane (123-91-1)	U	U		1.00	3.61	"	"	"
Ethyl acetate (141-78-6)	U	U		0.50	1.81	"	"	"
Ethyl alcohol (64-17-5)	U	U		1.00	1.89	"	"	"
Ethylbenzene (100-41-4)	U	U		0.25	1.09	"	"	"
1-Ethyl-4-methylbenzene (622-96-8)	U	U		0.25	1.23	"	"	"
n-Heptane (142-82-5)	U	U		0.25	1.03	"	"	"
Hexachlorobutadiene (87-68-3)	U	U		0.25	2.67	"	"	"
n-Hexane (110-54-3)	U	U		0.25	0.88	"	"	"
2-Hexanone (591-78-6)	U	U		0.50	2.05	"	"	"
Isopropyl alcohol (67-63-0)	U	U		5.00	12.3	"	"	"
Methylene chloride (75-09-2)	U	U		0.25	0.87	"	"	"
4-Methyl-2-pentanone (108-10-1)	U	U		0.50	2.05	"	"	"
Methyl methacrylate (80-62-6)	U	U		0.25	1.03	"	"	"
Methyl tertiary-butyl ether (1634-04-4)	U	U		0.25	0.90	"	"	"
Propene (115-07-1)	U	U		0.25	0.43	"	"	"
Styrene (100-42-5)	U	U		0.25	1.07	"	"	"
1,1,2,2-Tetrachloroethane (79-34-5)	U	U		0.25	1.72	"	"	"
Tetrachloroethene (127-18-4)	0.06	0.41		0.05	0.34	"	"	"
Tetrahydrofuran (109-99-9)	U	U		0.25	0.74	"	"	"
Toluene (108-88-3)	U	U		0.25	0.94	"	"	"
1,2,4-Trichlorobenzene (120-82-1)	U	U		0.25	1.86	"	"	"
1,1,1-Trichloroethane (71-55-6)	U	U		0.25	1.37	"	"	"
1,1,2-Trichloroethane (79-00-5)	U	U		0.25	1.37	"	"	"
Trichloroethene (79-01-6)	0.12	0.65	B	0.05	0.27	"	"	"
Trichlorofluoromethane (75-69-4)	U	U		0.25	1.41	"	"	"
1,1,2-Trichloro-1,2,2-trifluoroethane (76-13-1)	U	U		0.25	1.92	"	"	"
1,2,4-Trimethylbenzene (95-63-6)	U	U		0.25	1.23	"	"	"
1,3,5-Trimethylbenzene (108-67-8)	U	U		0.25	1.23	"	"	"



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS

Lab ID: 1205004-07

Station ID: TB-1-Air

Batch: B2E1504

Date Collected: 05/08/12

Initial Pressure: 12.9 psia

Sample Type: air

Sample Qualifiers:

Targets (Continued)

Analyte (CAS Number)	Result		Analyte Qualifiers	Reporting Limit		Dilution	Prepared	Analyzed
	ppbv	µg/m ³		ppbv	µg/m ³			
Vinyl acetate (108-05-4)	U	U		0.50	1.76	1	05/15/12	05/27/12
Vinyl chloride (75-01-4)	U	U		0.05	0.13	"	"	"
meta-/para-Xylene (na)	U	U		0.25	1.09	"	"	"
ortho-Xylene (95-47-6)	U	U		0.25	1.09	"	"	"

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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC Limits
Surr: 4-Bromofluorobenzene	3.73		4.00	93.2 70-130

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Acetone	U	1.25
Acrolein	U	0.25
Benzene	U	0.02
Benzyl chloride	U	0.25
1,3-Butadiene	U	0.12
2-Butanone	U	0.50
Bromodichloromethane	U	0.12
Bromoform	U	0.12
Bromomethane	U	0.12
Carbon disulfide	U	0.12
Carbon tetrachloride	U	0.12
Chlorobenzene	U	0.12
Chlorodibromomethane	U	0.12
Chloroethane	U	0.12
Chloroform	U	0.02
Chloromethane	U	0.12
Cyclohexane	U	0.12
1,2-Dibromoethane	U	0.12
1,2-Dichlorobenzene	U	0.12
1,3-Dichlorobenzene	U	0.12
1,4-Dichlorobenzene	U	0.12



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Dichlorodifluoromethane	U	0.12
1,1-Dichloroethane	U	0.12
1,2-Dichloroethane	U	0.12
1,1-Dichloroethene	U	0.12
cis-1,2-Dichloroethene	U	0.12
trans-1,2-Dichloroethene	U	0.12
1,2-Dichloropropane	U	0.12
cis-1,3-Dichloropropene	U	0.12
trans-1,3-Dichloropropene	U	0.12
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U	0.12
1,4-Dioxane	U	0.50
Ethyl acetate	U	0.25
Ethyl alcohol	U	0.50
Ethylbenzene	U	0.12
1-Ethyl-4-methylbenzene	U	0.12
n-Heptane	U	0.12
Hexachlorobutadiene	U	0.12
n-Hexane	U	0.12
2-Hexanone	U	0.25
Isopropyl alcohol	U	2.50
Methylene chloride	U	0.12
4-Methyl-2-pentanone	U	0.25
Methyl methacrylate	U	0.12
Methyl tertiary-butyl ether	U	0.12
Propene	U	0.12
Styrene	U	0.12
1,1,2,2-Tetrachloroethane	U	0.12
Tetrachloroethene	U	0.02



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Blank (B2E1401-BLK1)

Prepared: 5/14/2012 Analyzed: 5/26/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Tetrahydrofuran	U	0.12
Toluene	U	0.12
1,2,4-Trichlorobenzene	U	0.25
1,1,1-Trichloroethane	U	0.12
1,1,2-Trichloroethane	U	0.12
Trichloroethene	0.02	0.02
Trichlorofluoromethane	U	0.12
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.12
1,2,4-Trimethylbenzene	U	0.12
1,3,5-Trimethylbenzene	U	0.12
Vinyl acetate	U	0.25
Vinyl chloride	U	0.02
meta-/para-Xylene	U	0.12
ortho-Xylene	U	0.12

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC Limits
Surr: 4-Bromofluorobenzene	4.09		4.00	102 70-130

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	%REC Limits
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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	%REC %REC Limits
Acetone	4.89		5.00	97.8 70-130
Benzene	4.46		5.00	89.2 70-130
1,3-Butadiene	4.48		5.00	89.6 70-130
2-Butanone	4.47		5.00	89.4 70-130
Bromodichloromethane	4.69		5.00	93.8 70-130
Bromoform	3.95		5.00	79.0 70-130
Bromomethane	4.50		5.00	90.0 70-130
Carbon disulfide	5.31		5.00	106 70-130
Carbon tetrachloride	4.36		5.00	87.2 70-130
Chlorobenzene	4.42		5.00	88.4 70-130
Chloroethane	4.65		5.00	93.0 70-130
Chloroform	4.38		5.00	87.6 70-130
Chloromethane	4.62		5.00	92.4 70-130
Cyclohexane	4.73		5.00	94.6 70-130
1,2-Dibromoethane	4.72		5.00	94.4 70-130
Dichlorodifluoromethane	4.31		5.00	86.2 70-130
1,1-Dichloroethane	4.53		5.00	90.6 70-130
1,2-Dichloroethane	4.29		5.00	85.8 70-130
1,1-Dichloroethene	5.03		5.00	101 70-130
cis-1,2-Dichloroethene	4.37		5.00	87.4 70-130
trans-1,2-Dichloroethene	4.93		5.00	98.6 70-130
1,2-Dichloropropane	4.42		5.00	88.4 70-130
cis-1,3-Dichloropropene	4.86		5.00	97.2 70-130
trans-1,3-Dichloropropene	4.68		5.00	93.6 70-130
1,2-Dichloro-1,1,2,2-tetrafluoroethane	4.18		5.00	83.6 70-130
1,4-Dioxane	5.12		5.00	102 70-130
Ethyl alcohol	4.35		5.00	87.0 70-130
Ethylbenzene	4.44		5.00	88.8 70-130



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

LCS (B2E1401-BS1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	%REC %REC Limits
n-Heptane	5.30		5.00	106 70-130
n-Hexane	4.77		5.00	95.4 70-130
2-Hexanone	4.53		5.00	90.6 70-130
Isopropyl alcohol	4.54		5.00	90.8 70-130
Methylene chloride	4.42		5.00	88.4 70-130
4-Methyl-2-pentanone	4.61		5.00	92.2 70-130
Methyl tertiary-butyl ether	5.07		5.00	101 70-130
Propene	4.68		5.00	93.6 70-130
Styrene	3.96		5.00	79.2 70-130
Tetrachloroethene	4.40		5.00	88.0 70-130
Tetrahydrofuran	5.16		5.00	103 70-130
Toluene	4.67		5.00	93.4 70-130
1,1,1-Trichloroethane	4.46		5.00	89.2 70-130
1,1,2-Trichloroethane	4.49		5.00	89.8 70-130
Trichloroethene	4.33		5.00	86.6 70-130
Trichlorofluoromethane	4.20		5.00	84.0 70-130
1,1,2-Trichloro-1,2,2-trifluoroethane	4.46		5.00	89.2 70-130
Vinyl chloride	4.61		5.00	92.2 70-130
meta-/para-Xylene	8.55		10.0	85.5 70-130
ortho-Xylene	4.10		5.00	82.0 70-130

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC %REC Limits
Surr: 4-Bromofluorobenzene	4.10		4.00	102 70-130



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	Source Result	%REC Limits	RPD RPD	RPD Limit
Acetone	5.23		5.00		105 70-130	6.72	25
Benzene	4.80		5.00		96.0 70-130	7.34	25
1,3-Butadiene	4.94		5.00		98.8 70-130	9.77	25
2-Butanone	4.80		5.00		96.0 70-130	7.12	25
Bromodichloromethane	5.01		5.00		100 70-130	6.60	25
Bromoform	4.08		5.00		81.6 70-130	3.24	25
Bromomethane	4.57		5.00		91.4 70-130	1.54	25
Carbon disulfide	5.46		5.00		109 70-130	2.79	25
Carbon tetrachloride	4.60		5.00		92.0 70-130	5.36	25
Chlorobenzene	4.49		5.00		89.8 70-130	1.57	25
Chloroethane	4.94		5.00		98.8 70-130	6.05	25
Chloroform	4.73		5.00		94.6 70-130	7.68	25
Chloromethane	4.97		5.00		99.4 70-130	7.30	25
Cyclohexane	4.84		5.00		96.8 70-130	2.30	25
1,2-Dibromoethane	4.79		5.00		95.8 70-130	1.47	25
Dichlorodifluoromethane	4.57		5.00		91.4 70-130	5.86	25
1,1-Dichloroethane	4.89		5.00		97.8 70-130	7.64	25
1,2-Dichloroethane	4.64		5.00		92.8 70-130	7.84	25
1,1-Dichloroethene	5.24		5.00		105 70-130	4.09	25
cis-1,2-Dichloroethene	4.78		5.00		95.6 70-130	8.96	25
trans-1,2-Dichloroethene	5.27		5.00		105 70-130	6.67	25
1,2-Dichloropropane	4.79		5.00		95.8 70-130	8.03	25
cis-1,3-Dichloropropene	5.05		5.00		101 70-130	3.83	25
trans-1,3-Dichloropropene	4.80		5.00		96.0 70-130	2.53	25
1,2-Dichloro-1,1,2,2-tetrafluoroethane	4.36		5.00		87.2 70-130	4.22	25
1,4-Dioxane	5.29		5.00		106 70-130	3.27	25
Ethyl alcohol	4.12		5.00		82.4 70-130	5.43	25
Ethylbenzene	4.57		5.00		91.4 70-130	2.89	25



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

LCS Dup (B2E1401-BSD1)

Prepared: 5/14/2012 Analyzed: 5/24/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit	Spike Level	Source Result	%REC Limits	RPD RPD Limit
n-Heptane	5.08		5.00		102 70-130	4.24 25
n-Hexane	4.80		5.00		96.0 70-130	0.63 25
2-Hexanone	4.80		5.00		96.0 70-130	5.79 25
Isopropyl alcohol	5.77		5.00		115 70-130	23.9 25
Methylene chloride	4.70		5.00		94.0 70-130	6.14 25
4-Methyl-2-pentanone	4.72		5.00		94.4 70-130	2.36 25
Methyl tertiary-butyl ether	5.21		5.00		104 70-130	2.72 25
Propene	4.88		5.00		97.6 70-130	4.18 25
Styrene	4.04		5.00		80.8 70-130	2.00 25
Tetrachloroethene	4.66		5.00		93.2 70-130	5.74 25
Tetrahydrofuran	5.60		5.00		112 70-130	8.18 25
Toluene	4.72		5.00		94.4 70-130	1.06 25
1,1,1-Trichloroethane	4.74		5.00		94.8 70-130	6.09 25
1,1,2-Trichloroethane	4.90		5.00		98.0 70-130	8.73 25
Trichloroethene	4.56		5.00		91.2 70-130	5.17 25
Trichlorofluoromethane	4.65		5.00		93.0 70-130	10.2 25
1,1,2-Trichloro-1,2,2-trifluoroethane	4.74		5.00		94.8 70-130	6.09 25
Vinyl chloride	4.86		5.00		97.2 70-130	5.28 25
meta-/para-Xylene	8.85		10.0		88.5 70-130	3.45 25
ortho-Xylene	4.25		5.00		85.0 70-130	3.59 25

Duplicate (B2E1401-DUP1)

Source: 1205004-01

Prepared: 5/14/2012 Analyzed: 5/27/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC Limits
Surr: 4-Bromofluorobenzene	3.74		4.00	93.5 70-130



Environmental Protection Agency
Region 6 Laboratory

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Phone:(281)983-2100 Fax:(281)983-2248

Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01

Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets

ANALYTE	Result ppbv	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD RPD Limit
Acetone	U		12,500			25
Benzene	134,000		2,500		136,000	1.86 35
Benzyl chloride	U		2,500			35
1,3-Butadiene	U		1,250			35
2-Butanone	U		5,000			35
Bromodichloromethane	U		1,250			25
Bromoform	U		1,250			25
Bromomethane	U		1,250			35
Carbon disulfide	U		1,250			25
Carbon tetrachloride	U		1,250			35
Chlorobenzene	U		12,500			35
Chlorodibromomethane	U		1,250			25
Chloroethane	U		1,250			35
Chloroform	U		250			35
Chloromethane	U		1,250			35
Cyclohexane	531,000		12,500		562,000	5.58 25
1,2-Dibromoethane	U		1,250			35
1,2-Dichlorobenzene	U		1,250			35
1,3-Dichlorobenzene	U		1,250			35
1,4-Dichlorobenzene	U		1,250			35
Dichlorodifluoromethane	U		1,250			35
1,1-Dichloroethane	U		1,250			35
1,2-Dichloroethane	U		1,250			35
1,1-Dichloroethene	U		1,250			35
cis-1,2-Dichloroethene	U		1,250			35
trans-1,2-Dichloroethene	U		1,250			25
1,2-Dichloropropane	U		1,250			35
cis-1,3-Dichloropropene	U		1,250			35
trans-1,3-Dichloropropene	U		1,250			35



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01

Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD RPD	Limit
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U		1,250				35
1,4-Dioxane	U		5,000				25
Ethyl alcohol	U		5,000				25
Ethylbenzene	U		1,250				35
1-Ethyl-4-methylbenzene	U		1,250				35
n-Heptane	2,850		1,250		2,550	11.1	25
Hexachlorobutadiene	U		1,250				35
n-Hexane	38,200		1,250		35,200	8.16	35
2-Hexanone	U		2,500				25
Isopropyl alcohol	U		25,000				25
Methylene chloride	U		12,500				35
4-Methyl-2-pentanone	U		2,500				35
Methyl tertiary-butyl ether	U		1,250				35
Propene	21,400		1,250		19,700	8.04	25
Styrene	U		1,250				35
1,1,2,2-Tetrachloroethane	U		1,250				35
Tetrachloroethene	U		250				35
Tetrahydrofuran	U		1,250				25
Toluene	U		1,250				35
1,2,4-Trichlorobenzene	U		1,250				35
1,1,1-Trichloroethane	U		1,250				35
1,1,2-Trichloroethane	U		1,250				35
Trichloroethene	U		250				35
Trichlorofluoromethane	U		1,250				35
1,1,2-Trichloro-1,2,2-trifluoroethane	U		1,250				35
1,2,4-Trimethylbenzene	4,250		1,250		4,000	6.06	35
1,3,5-Trimethylbenzene	U		1,250				35



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1401

Sample Type: air

Duplicate (B2E1401-DUP1)

Source: 1205004-01

Prepared: 5/14/2012 Analyzed: 5/27/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Qualifiers	Reporting Limit	Spike Level	Source Result	RPD RPD	Limit
Vinyl chloride	U		250				35
meta-/para-Xylene	3,550		1,250		3,350	5.80	35
ortho-Xylene	U		1,250				35



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504

Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Surrogates

ANALYTE	Result ppbv	Analyte Qualifier	Spike Level	%REC Limits
Surr: 4-Bromofluorobenzene	3.68		4.00	92.0 70-130

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Acetone	U	1.25
Acrolein	U	0.25
Benzene	U	0.02
Benzyl chloride	U	0.25
1,3-Butadiene	U	0.12
2-Butanone	U	0.50
Bromodichloromethane	U	0.12
Bromoform	U	0.12
Bromomethane	U	0.12
Carbon disulfide	U	0.12
Carbon tetrachloride	U	0.12
Chlorobenzene	U	0.12
Chlorodibromomethane	U	0.12
Chloroethane	U	0.12
Chloroform	U	0.02
Chloromethane	U	0.12
Cyclohexane	U	0.12
1,2-Dibromoethane	U	0.12
1,2-Dichlorobenzene	U	0.12
1,3-Dichlorobenzene	U	0.12
1,4-Dichlorobenzene	U	0.12



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504

Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets (Continued)

ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Dichlorodifluoromethane	U	0.12
1,1-Dichloroethane	U	0.12
1,2-Dichloroethane	U	0.12
1,1-Dichloroethene	U	0.12
cis-1,2-Dichloroethene	U	0.12
trans-1,2-Dichloroethene	U	0.12
1,2-Dichloropropane	U	0.12
cis-1,3-Dichloropropene	U	0.12
trans-1,3-Dichloropropene	U	0.12
1,2-Dichloro-1,1,2,2-tetrafluoroethane	U	0.12
1,4-Dioxane	U	0.50
Ethyl acetate	U	0.25
Ethyl alcohol	U	0.50
Ethylbenzene	U	0.12
1-Ethyl-4-methylbenzene	U	0.12
n-Heptane	U	0.12
Hexachlorobutadiene	U	0.12
n-Hexane	U	0.12
2-Hexanone	U	0.25
Isopropyl alcohol	U	2.50
Methylene chloride	U	0.12
4-Methyl-2-pentanone	U	0.25
Methyl methacrylate	U	0.12
Methyl tertiary-butyl ether	U	0.12
Propene	U	0.12
Styrene	U	0.12
1,1,2,2-Tetrachloroethane	U	0.12
Tetrachloroethene	U	0.02



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Toxic Organic Compounds in Ambient Air-TO15 - GC/MS - Quality Control

Batch: B2E1504

Sample Type: air

Blank (B2E1504-BLK1)

Prepared: 5/15/2012 Analyzed: 5/27/2012

Targets (Continued)

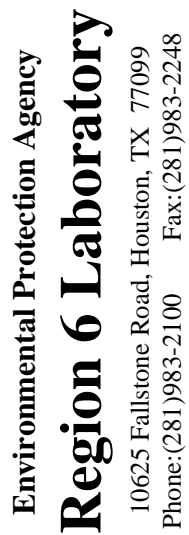
ANALYTE	Result ppbv	Analyte Reporting Qualifiers Limit
Tetrahydrofuran	U	0.12
Toluene	U	0.12
1,2,4-Trichlorobenzene	U	0.12
1,1,1-Trichloroethane	U	0.12
1,1,2-Trichloroethane	U	0.12
Trichloroethene	U	0.02
Trichlorofluoromethane	U	0.12
1,1,2-Trichloro-1,2,2-trifluoroethane	U	0.12
1,2,4-Trimethylbenzene	U	0.12
1,3,5-Trimethylbenzene	U	0.12
Vinyl acetate	U	0.25
Vinyl chloride	U	0.02
meta-/para-Xylene	U	0.12
ortho-Xylene	U	0.12

[illegible]

[illegible]

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	Jessie Jones	5-7-12	C Warren	5/14/12	9:15						

[illegible]



AirbillNo: 7983 6108 1447

CHAIN OF CUSTODY RECORD

Site #: 06MB

No: 6-050912-234855-0004

Lab: U.S. EPA Region 6 Laboratory Sample Control Center

Lab Contact: Christy Warren

Lab Phone: 281-983-2137

[illegible]

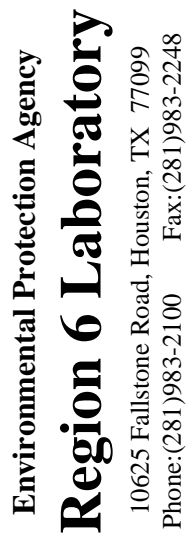
Special Instructions:

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TO-15=TO-15

[illegible]

[illegible]



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Notes and Definitions

J	The identification of the analyte is acceptable; the reported value is an estimate.
B	Blank Related - The concentration found in the sample was less than 10X the concentration found in the associated extraction, digestion and/or analysis blank. Presence in the sample is therefore suspect.
A	This sample was extracted at a single acid pH.
HTS	Sample was prepared and/or analyzed past recommended holding time. Concentrations should be considered minimum values.
AES	Atomic Emission Spectrometer
CVAA	Cold Vapor Atomic Absorption
ECD	Electron Capture Detector
GC	Gas Chromatograph
GFAA	Graphite Furnace Atomic Absorption
ICP	Inductively Coupled Plasma
MS	Mass Spectrometer
NA	Not Applicable
NPD	Nitrogen Phosphorous Detector
NR	Not Reported
TCLP	Toxicity Characteristic Leaching Procedure
U	Undetected
#	Out of QC limits

Initial pressure in air analyses is the pressure at which the canister was received in psia (pounds *per* square inch absolute pressure).

The pH reported for Volatile liquid samples was tested using a 0-14 pH indicator strip for the purpose of verifying chemical preservation.



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The statistical software used for the reporting of toxicity data is ToxCalc 5.0.32, Environmental Toxicity Data Analysis System 1994-2007 Tidepool Scientific Software.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

July 16, 2012

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review
FROM: *Raymond Flores*
Raymond Flores, Alternate ESAT Regional Project Officer
Environmental Services Branch (6MD-HL)
TO: Chris Villarreal, Superfund Project Manager (6SF-RA)

Site: R&H OIL/TROPICANA
Case#: 42498
SDG#: F5MP0

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: July 16, 2012
TO: Marvelyn Humphrey, ESAT PO, Region 6 EPA
FROM: Tseng-Ying Fan, Data Reviewer, ESAT *aj*
THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT *pgj*
SUBJECT: CLP Data Review

Contract No.: EP-W-06-030
TO No.: 030
Task/Sub-Task: 2-11
ESAT Doc. No.: B030-211-0025
TDF No.: 6-12-368B
ESAT File No.: 0-0882

Attached is the data review summary for Case # 42498
SDG # F5MP0
Site R & H Oil/Tropicana

COMMENTS:

I. LEVEL OF DATA REVIEW

Region 6 Standard Review was performed for this data package.

II. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

The CCS and hardcopy review found the data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

Some results were qualified because of technical problems, and the significant problems are listed below.

A. Seven TVOA and two TVOA-SIM samples had poor DMC performance.

B. Two reported TVOA analytes had questionable identification.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

ORGANIC REGIONAL DATA ASSESSMENT

CASE NO.	42498	SITE	R & H Oil/Tropicana
LABORATORY	A4	NO. OF SAMPLES	17
CONTRACT#	EP-W-10-018	MATRIX	Water
SDG#	F5MP0	REVIEWER (IF NOT ESB)	ESAT
SOW#	SOM01.2/MA1359.6 & MA1859.1	REVIEWER'S NAME	Tseng-Ying Fan
SF#	303DD2MB	COMPLETION DATE	July 16, 2012

SAMPLE NO.	F5MP0	F5MP4	F5MP8	F5MQ4	F5MQ8
	F5MP1	F5MP5	F5MP9	F5MQ5	
	F5MP2	F5MP6	F5MQ0	F5MQ6	
	F5MP3	F5MP7	F5MQ1	F5MQ7	

DATA ASSESSMENT SUMMARY

	TVOA	TVOA SIM	BNA	BMA SIM
1. HOLDING TIMES	O	O	O	O
2. GC/MS TUNE/INSTR. PERFORM.	O	O	O	O
3. CALIBRATIONS	M	M	O	O
4. BLANKS	M	O	O	O
5. DMC/SURROGATES	M	M	O	O
6. MATRIX SPIKE/DUPLICATE/LCS	N/A	N/A	N/A	N/A
7. OTHER QC	N/A	N/A	N/A	N/A
8. INTERNAL STANDARDS	O	O	O	O
9. COMPOUND ID/QUANTITATION	M	O	O	O
10. PERFORMANCE/COMPLETENESS	O	O	O	O
11. OVERALL ASSESSMENT	M	M	O	O

O = Data had no problems.

M = Data qualified because of major or minor problems.

Z = Data unacceptable.

NA = Not applicable.

ACTION ITEMS:

AREA OF CONCERN: TVOA Vinyl chloride, bromomethane, and carbon tetrachloride failed the technical %D or minimum RRF calibration criteria. The concentrations exceeded the upper instrument calibration limit for three reported analytes. Laboratory/field contamination affected four results. Seven samples had outlying DMC recoveries. Two reported analytes had questionable identification.

TVOA-SIM The instrument had poor sensitivity for 1,2-dibromo-3-chloropropane. Samples F5MP9 and F5MQ8 had poor DMC performance.

**COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW**

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

COMMENTS: This SDG consisted of 17 water samples for organics analysis following CLP SOW SOM01.2. With the exception of sample F5MQ4, the samples required TVOA and TVOA-SIM analyses. Samples F5MQ4, F5MP0, F5MP1, F5MP2, and F5MP3 required BNA and BNA-SIM analyses. The TVOA samples are subject to Modified Analysis Request 1359.6 (MA1359.6), which requires the analysis of 18 additional target compounds, including BNA TCL compounds naphthalene and hexachlorobutadiene. The BNA samples are subject to Modified Analysis Request 1859.1 (MA1859.1), which requires the analysis of two additional target compounds. The COC Records designated samples F5MQ5 and F5MQ6 as trip blanks and samples F5MQ7 and F5MQ8 as field blanks. No sample was designated for MS/MSD analyses.

Region 6 Standard Review was performed for this package as requested by the TDF. The target compounds of concern and action levels are listed on pages 118 to 121 of this report. Please note that the reported CRQLs were higher than the action levels for some compounds of concern for many samples because of method limitation or sample dilution. Some target compounds of concern were reported at concentrations over the action levels for TVOA samples F5MP0, F5MP1, F5MP2, F5MP3, and F5MP6 and BNA samples F5MP0, F5MP3, and F5MQ4.

For the target compounds with both the full scan and SIM analysis results available, the SIM analysis results are designated for use unless the corresponding full scan analysis reported results \geq CRQLs. One exception is that the full scan QL for 1,2-dibromo-3-chloropropane was designated for use for TVOA samples F5MP0, F5MP1, F5MP3, and F5MP6 because poor instrument sensitivity rendered the corresponding SIM analysis QL unusable. With the exception of sample F5MQ4, naphthalene and hexachlorobutadiene were target compounds for both the TVOA (MA1359.6) and BNA methods, and the reviewer designated for use the TVOA analysis results to achieve lower QL.

TVOA Many samples had outlying DMC recoveries, but the reviewer could not assess the impact on the results for the additional compounds requested by MA1359.6 because the association of these compounds with DMCs was unavailable to the reviewer.

Samples F5MP0, F5MP1, F5MP2, F5MP3, and F5MP6 were initially analyzed at 25X dilution followed by reanalysis at additional dilution because of extremely high TCL concentrations.

TVOA-SIM Samples F5MP4, F5MP5, F5MP8, F5MP9, F5MQ0, and F5MQ8 were reanalyzed because of poor DMC performance. The reanalyses repeated the problem, demonstrating matrix effect. The original analysis results are designated for use to minimize data qualification. Samples F5MP0, F5MP1, F5MP3, and F5MP6 were only analyzed at 25X dilution because of high matrix levels.

**ORGANIC QA REVIEW
CONTINUATION PAGE**

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

BNA/BNA-SIM Most of the samples were initially analyzed at dilution with some followed by further dilution because of high TCL concentration or matrix level. BNA-SIM samples F5MP2 and F5MP3 were reanalyzed because of poor IS performance, and the reanalyses confirmed matrix effect. The original analysis results are designated for use.

DATA ASSESSMENT: The QC problems affecting data usability are addressed below.

TVOA

- The samples were preserved with acid as indicated by the pH values reported by the laboratory. Please note that polymerization of vinyl chloride and styrene is likely to occur in acid-preserved samples and could cause low-biased results for these two compounds.
- The reviewer qualified the results for the following compounds as estimated because these compounds failed the technical %D criteria for the associated opening CCV:

vinyl chloride in all samples and

carbon tetrachloride in samples F5MP4, F5MP5, F5MP6DL, F5MP8, F5MP9, and F5MQ1.

- The reviewer qualified as estimated the results for methylcyclohexane and 1,2,4-trimethylbenzene in sample F5MP0 and o-xylene in sample F5MP3 because the concentrations exceeded the upper instrument calibration limit. These analytes were diluted below the sample quantitation limits in the diluted reanalyses.
- Bromomethane did not meet the technical minimum RRF criteria for the low point IC. Since the IC raw data demonstrated the instrument sensitivity at the CRQL, the reviewer did not reject the associated non-detect results. Instead, the reviewer qualified the bromomethane QLs as estimated and biased low for all samples because raw data for the associated CCVs indicated a significant loss of instrument sensitivity for bromomethane. In the reviewer's opinion, the actual QL was 10X the reported value for bromomethane.
- Because of possible laboratory contamination, the laboratory "B"-flagged methylene chloride results <CRQLs should be considered undetected and were flagged "U" at the CRQLs on the DST.

ORGANIC QA REVIEW
CONTINUATION PAGE

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

- Because of possible laboratory contamination, the reviewer qualified the laboratory "B"-flagged methylene chloride result >CRQL as undetected ("U"-flagged) for sample F5MQ6 and the reported concentration should be used as a raised QL ("M"-flagged).
- Because of possible field/shipping contamination, results <CRQLs for the following compounds should be considered undetected and were flagged "U" at the CRQLs on the DST:

toluene and m,p-xylene in sample F5MP1,

toluene in sample F5MP2, and

naphthalene in sample F5MP5.
- Because of possible field contamination, the naphthalene results >CRQLs for the following samples were qualified as undetected ("U"-flagged) and the reported concentrations should be used as raised QLs ("M"-flagged): F5MP7, F5MP8, and F5MQ0.
- The reviewer qualified the trichloroethene, tetrachloroethene, ethylbenzene, and isopropylbenzene results >CRQLs as estimated and biased high for sample F5MP8 because the associated VDMC9 recovery exceeded the QC limit.
- Sample F5MP6 had an extremely low VDMC6 recovery (<10%), rendering associated non-detect results unusable. To maximize data usability, the reviewer recommends that the results associated with VDMC6 be taken from the diluted reanalysis (with an acceptable VMDC6 recovery) for this sample.
- The following samples had DMC recoveries below the QC limits, so the reviewer qualified as estimated and biased low the analyte results associated with these DMCs as listed below.

Sample	DMC
F5MP0	VDMC1, VDMC3
F5MP4	VDMC10
F5MP7	VDMC13
F5MP8	VDMC10
F5MQ1	VDMC10
F5MQ6	VDMC13
F5MQ7	VDMC13

- The tert-butylbenzene spectra submitted for sample F5MP6 did not meet the relative intensity compound identification criteria, so the reviewer qualified the tert-butylbenzene identification as tentative for this sample, pending laboratory verification.

**ORGANIC QA REVIEW
CONTINUATION PAGE**

CASE 42498 SDG F5MP0 SITE R & H Oil/Tropicana LAB A4

- The reviewer qualified the 1,2,4-trimethylbenzene identification as tentative for sample F5MP8 because of questionable RT, pending laboratory verification.

TVOA-SIM

- The instrument had poor sensitivity for 1,2-dibromo-3-chloropropane as demonstrated by the manual integration data submitted for the calibration standards. The raw data for one closing CCV showed that the instrument had difficulty detecting this analyte in the associated samples. Instead of rejecting the affected non-detect results, the reviewer recommends that the QL from the full scan analysis be taken for 1,2-dibromo-3-chloropropane for samples F5MP0, F5MP1, F5MP3, and F5MP6. The reviewer flagged the results in the DST accordingly. The poor instrument sensitivity also affected other samples to a lesser extent. The reviewer qualified the 1,2-dibromo-3-chloropropane QLs for the rest of the TVOA-SIM samples as estimated and biased low, and the actual QL was 10X the reported value in the reviewer's opinion.
- The reviewer qualified as estimated and biased low the 1,2-dibromoethane result for sample F5MP9 and the 1,2-dibromo-3-chloropropane result for sample F5MQ8 because the associated DMCs had recoveries below the QC limits.

BNA

Because of possible laboratory contamination, the laboratory "B"-flagged diethylphthalate and di-n-butylphthalate results <CRQLs for sample F5MP2 should be considered undetected and were flagged "U" at the CRQLs on the DST.

OVERALL ASSESSMENT: Some results were qualified for all TVOA and 12 TVOA-SIM samples because of problems with calibration, laboratory/field/shipping contamination, DMC recovery, and/or compound identification. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

In response to the CCS, the laboratory submitted the calibration form and raw data for the additional target compounds requested by MA1359.6. The reviewer repaginated the resubmitted data to go with the original data package. The resubmitted pages are placed at the beginning of the data package and should be inserted into the CSF package.

The laboratory was contacted for several CSF and reporting issues (see Resubmission Request). The laboratory response is likely to affect the DST.

ORGANIC ACRONYMS

%D	Percent Difference
%RSD	Percent Relative Standard Deviation
ARO	Aroclors
BFB	4-Bromofluorobenzene
BNA	Base/Neutral and Acid
CADRE	Computer-Aided Data Review and Evaluation
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CF	Calibration Factor
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DCB	Decachlorobiphenyl
DFTPP	Decafluorotriphenylphosphine
DMC	Deuterated Monitoring Compound
DST	Data Summary Table
GC/ECD	Gas Chromatograph/Electron Capture Detector
GC/MS	Gas Chromatograph/Mass Spectrometer
GPC	Gel Permeation Chromatography
IC	Initial Calibration
INDA (B,C)	Individual Standard Mixture A(or B or C)
IS	Internal Standard
LCS	Laboratory Control Sample
LMVOA	Low/Medium Volatile Organic Analysis
MS/MSD	Matrix Spike/Matrix Spike Duplicate
NFG	National Functional Guidelines
OTR/COC	Organic Traffic Report/Chain of Custody
PAH	Polynuclear Aromatic Hydrocarbon
PE	Performance Evaluation
PEM	Performance Evaluation Mixture
PEST	Pesticides
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RIC	Reconstructed Ion Chromatogram
RPD	Relative Percent Difference
RRF	Relative Response Factor
RRT	Relative Retention Time
RSCC	Regional Sample Control Center
RT	Retention Time
SDG	Sample Delivery Group
SDMC	Semivolatile Deuterated Monitoring Compound
SIM	Selected Ion Monitoring
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
SVOA	Semivolatile Organic Analysis
TCL	Target Compound List
TCX	Tetrachloro-m-xylene
TIC	Tentatively Identified Compound
TVOA	Trace Volatile Organic Analysis
VDMC	Volatile Deuterated Monitoring Compound
VOA	Volatile Organic Analysis

ORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U** Not detected at reported quantitation limit.
- N** Identification is tentative.
- J** Estimated value.
- L** Reported concentration is below the CRQL.
- M** Reported concentration should be used as a raised quantitation limit because of interferences and/or laboratory contamination.
- R** Unusable.
- ^** High biased. Actual concentration may be lower than the concentration reported.
- v** Low biased. Actual concentration may be higher than the concentration reported.
- F+** A false positive exists.
- F-** A false negative exists.
- UJ** Estimated quantitation limit.
- T** Identification is questionable because of absence of other commonly coexisting pesticides.
- C** Identification of pesticide or aroclor has been confirmed by Gas Chromatography/Mass Spectrometer (GC/MS).
- X** Identification of pesticide or aroclor could not be confirmed by GC/MS when attempted.
- *** Result not recommended for use because of associated QA/QC performance inferior to that from other analysis.

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0		
STATION LOCATION	MW-14		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJv
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	UJv
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	UJv
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	UJv
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	1200	*
Carbon tetrachloride	13	13	U
Benzene	13	9900	*
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	600	J
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	10000	*
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	190	
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U*
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP0		
STATION LOCATION		MW-14	
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	13	1300	*
o-Xylene	13	2800	*
m,p-Xylene	13	6800	*
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	75	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	400	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	240	
n-Propylbenzene	13	94	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	1000	U
Bromobenzene	13	13	U

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0DL		
STATION LOCATION	MW-14		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	1300	1300	U *
Chloromethane	1300	1300	U *
Vinyl chloride	1300	1300	U *
Bromomethane	1300	1300	U *
Chloroethane	1300	1300	U *
Trichlorofluoromethane	1300	1300	U *
1,1-Dichloroethene	1300	1300	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	1300	1300	U *
Acetone	13000	13000	U *
Carbon Disulfide	1300	1300	U *
Methyl acetate	1300	1300	U *
Methylene chloride	1300	1300	U *
trans-1,2-Dichloroethene	1300	1300	U *
Methyl tert-butyl ether	1300	1300	U *
1,1-Dichloroethane	1300	1300	U *
cis-1,2-Dichloroethene	1300	1300	U *
2-Butanone	13000	13000	U *
Bromochloromethane	1300	1300	U *
Chloroform	1300	1300	U *
1,1,1-Trichloroethane	1300	1300	U *
Cyclohexane	1300	1400	
Carbon tetrachloride	1300	1300	U *
Benzene	1300	26000	
1,2-Dichloroethane	1300	1300	U *
Trichloroethene	1300	1300	U *
Methylcyclohexane	1300	1300	U *
1,2-Dichloropropane	1300	1300	U *
Bromodichloromethane	1300	1300	U *
cis-1,3-Dichloropropene	1300	1300	U *
4-Methyl-2-pentanone	13000	13000	U *
Toluene	1300	24000	
trans-1,3-Dichloropropene	1300	1300	U *
1,1,2-Trichloroethane	1300	1300	U *
Tetrachloroethene	1300	1300	U *
2-Hexanone	13000	13000	U *
Dibromochloromethane	1300	1300	U *
1,2-Dibromoethane	1300	1300	U *
Chlorobenzene	1300	1300	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP0DL		
STATION LOCATION	MW-14		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	1300	1100	LJ
o-Xylene	1300	2500	
m,p-Xylene	1300	7300	
Styrene	1300	1300	U *
Bromoform	1300	1300	U *
Isopropylbenzene	1300	1300	U *
1,1,2,2-Tetrachloroethane	1300	1300	U *
1,3-Dichlorobenzene	1300	1300	U *
1,4-Dichlorobenzene	1300	1300	U *
1,2-Dichlorobenzene	1300	1300	U *
1,2-Dibromo-3-chloropropane	1300	1300	U *
1,2,4-Trichlorobenzene	1300	1300	U *
1,2,3-Trichlorobenzene	1300	1300	U *
1,3-Dichloropropane	1300	1300	U *
n-Butylbenzene	1300	1300	U *
sec-Butylbenzene	1300	1300	U *
tert-Butylbenzene	1300	1300	U *
2-Chlorotoluene	1300	1300	U *
4-Chlorotoluene	1300	1300	U *
Dibromomethane	1300	1300	U *
1,3,5-Trimethylbenzene	1300	1300	U *
2,2-Dichloropropane	1300	1300	U *
1,1-Dichloropropene	1300	1300	U *
Hexachlorobutadiene	1300	1300	U *
p-Isopropyltoluene	1300	1300	U *
Naphthalene	1300	710	*
n-Propylbenzene	1300	1300	U *
1,1,1,2-Tetrachloroethane	1300	1300	U *
1,2,3-Trichloropropane	1300	1300	U *
1,2,4-Trimethylbenzene	1300	1300	U *
Bromobenzene	1300	1300	U *

Volume (ml) : 25

Dilution Factor : 2500

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0 (SIM)		
STATION LOCATION	MW-14		
Volatiles	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml) : 25
 Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION	MW-16		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	220	U
Carbon tetrachloride	13	13	U
Benzene	13	1600	*
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	200	U
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	13	U
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U*
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION	MW-16		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	13	2.9	LJ
o-Xylene	13	3.0	LJ
m,p-Xylene	13	13	U
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	14	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	13	U
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	17	
n-Propylbenzene	13	17	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	3.6	LJ
Bromobenzene	13	13	U

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP1DL		
STATION LOCATION	MW-16		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	130	130	U *
Chloromethane	130	130	U *
Vinyl chloride	130	130	U *
Bromomethane	130	130	U *
Chloroethane	130	130	U *
Trichlorofluoromethane	130	130	U *
1,1-Dichloroethene	130	130	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	130	130	U *
Acetone	1300	1300	U *
Carbon Disulfide	130	130	U *
Methyl acetate	130	130	U *
Methylene chloride	130	130	U *
trans-1,2-Dichloroethene	130	130	U *
Methyl tert-butyl ether	130	130	U *
1,1-Dichloroethane	130	130	U *
cis-1,2-Dichloroethene	130	130	U *
2-Butanone	1300	1300	U *
Bromochloromethane	130	130	U *
Chloroform	130	130	U *
1,1,1-Trichloroethane	130	130	U *
Cyclohexane	130	230	U *
Carbon tetrachloride	130	130	U *
Benzene	130	1800	U *
1,2-Dichloroethane	130	130	U *
Trichloroethene	130	130	U *
Methylcyclohexane	130	210	U *
1,2-Dichloropropane	130	130	U *
Bromodichloromethane	130	130	U *
cis-1,3-Dichloropropene	130	130	U *
4-Methyl-2-pentanone	1300	1300	U *
Toluene	130	130	U *
trans-1,3-Dichloropropene	130	130	U *
1,1,2-Trichloroethane	130	130	U *
Tetrachloroethene	130	130	U *
2-Hexanone	1300	1300	U *
Dibromochloromethane	130	130	U *
1,2-Dibromoethane	130	130	U *
Chlorobenzene	130	130	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP1DL		
STATION LOCATION	MW-16		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	130	130	U*
o-Xylene	130	130	U*
m,p-Xylene	130	130	U*
Styrene	130	130	U*
Bromoform	130	130	U*
Isopropylbenzene	130	130	U*
1,1,2,2-Tetrachloroethane	130	130	U*
1,3-Dichlorobenzene	130	130	U*
1,4-Dichlorobenzene	130	130	U*
1,2-Dichlorobenzene	130	130	U*
1,2-Dibromo-3-chloropropane	130	130	U*
1,2,4-Trichlorobenzene	130	130	U*
1,2,3-Trichlorobenzene	130	130	U*
1,3-Dichloropropane	130	130	U*
n-Butylbenzene	130	130	U*
sec-Butylbenzene	130	130	U*
tert-Butylbenzene	130	130	U*
2-Chlorotoluene	130	130	U*
4-Chlorotoluene	130	130	U*
Dibromomethane	130	130	U*
1,3,5-Trimethylbenzene	130	130	U*
2,2-Dichloropropane	130	130	U*
1,1-Dichloropropene	130	130	U*
Hexachlorobutadiene	130	130	U*
p-Isopropyltoluene	130	130	U*
Naphthalene	130	61	U*
n-Propylbenzene	130	130	U*
1,1,1,2-Tetrachloroethane	130	130	U*
1,2,3-Trichloropropane	130	130	U*
1,2,4-Trimethylbenzene	130	130	U*
Bromobenzene	130	130	U*

Volume (ml) : 25
Dilution Factor : 250

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP1 (SIM)		
STATION LOCATION	MW-16		
Volatile	ADJ	RESULT	FLAG
	CRQL		
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2		
STATION LOCATION	MW-17		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	370	U
Carbon tetrachloride	13	13	U
Benzene	13	2200	U *
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	230	U
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	13	U
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP2		
STATION LOCATION	MW-17		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	13	320	
o-Xylene	13	13	
m,p-Xylene	13	310	
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	16	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U*
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	84	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	76	
n-Propylbenzene	13	27	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	240	
Bromobenzene	13	13	U

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2DL		
STATION LOCATION	MW-17		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	130	130	U *
Chloromethane	130	130	U *
Vinyl chloride	130	130	U *
Bromomethane	130	130	U *
Chloroethane	130	130	U *
Trichlorofluoromethane	130	130	U *
1,1-Dichloroethene	130	130	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	130	130	U *
Acetone	1300	1300	U *
Carbon Disulfide	130	130	U *
Methyl acetate	130	130	U *
Methylene chloride	130	130	U *
trans-1,2-Dichloroethene	130	130	U *
Methyl tert-butyl ether	130	130	U *
1,1-Dichloroethane	130	130	U *
cis-1,2-Dichloroethene	130	130	U *
2-Butanone	1300	1300	U *
Bromochloromethane	130	130	U *
Chloroform	130	130	U *
1,1,1-Trichloroethane	130	130	U *
Cyclohexane	130	320	U *
Carbon tetrachloride	130	130	U *
Benzene	130	2500	U *
1,2-Dichloroethane	130	130	U *
Trichloroethene	130	130	U *
Methylcyclohexane	130	210	U *
1,2-Dichloropropane	130	130	U *
Bromodichloromethane	130	130	U *
cis-1,3-Dichloropropene	130	130	U *
4-Methyl-2-pentanone	1300	1300	U *
Toluene	130	130	U *
trans-1,3-Dichloropropene	130	130	U *
1,1,2-Trichloroethane	130	130	U *
Tetrachloroethene	130	130	U *
2-Hexanone	1300	1300	U *
Dibromochloromethane	130	130	U *
1,2-Dibromoethane	130	130	U *
Chlorobenzene	130	130	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No.: 42498

SDG: F5MP0

Reviewer: T. Fan

Laboratory: A4

Matrix: Water

Units: ug/L

EPA SAMPLE No.	F5MP2DL		
STATION LOCATION	MW-17		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	130	260	*
o-Xylene	130	130	U *
m,p-Xylene	130	280	*
Styrene	130	130	U *
Bromoform	130	130	U *
Isopropylbenzene	130	130	U *
1,1,2,2-Tetrachloroethane	130	130	U *
1,3-Dichlorobenzene	130	130	U *
1,4-Dichlorobenzene	130	130	U *
1,2-Dichlorobenzene	130	130	U *
1,2-Dibromo-3-chloropropane	130	130	U *
1,2,4-Trichlorobenzene	130	130	U *
1,2,3-Trichlorobenzene	130	130	U *
1,3-Dichloropropane	130	130	U *
n-Butylbenzene	130	130	U *
sec-Butylbenzene	130	130	U *
tert-Butylbenzene	130	130	U *
2-Chlorotoluene	130	130	U *
4-Chlorotoluene	130	130	U *
Dibromomethane	130	130	U *
1,3,5-Trimethylbenzene	130	130	U *
2,2-Dichloropropane	130	130	U *
1,1-Dichloropropene	130	130	U *
Hexachlorobutadiene	130	130	U *
p-Isopropyltoluene	130	130	U *
Naphthalene	130	100	*
n-Propylbenzene	130	130	U *
1,1,1,2-Tetrachloroethane	130	130	U *
1,2,3-Trichloropropane	130	130	U *
1,2,4-Trimethylbenzene	130	190	*
Bromobenzene	130	130	U *

Volume (ml): 25

Dilution Factor: 250

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2 (SIM)		
STATION LOCATION		MW-17	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP3		
STATION LOCATION	MW-18		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U
Methylene chloride	13	13	U
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U
Cyclohexane	13	1400	U *
Carbon tetrachloride	13	13	U *
Benzene	13	8200	U *
1,2-Dichloroethane	13	13	U
Trichloroethene	13	13	U
Methylcyclohexane	13	800	U *
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	3100	U *
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3		
STATION LOCATION	MW-18		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	13	860	*
o-Xylene	13	510	J
m,p-Xylene	13	2700	*
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	47	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	13	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	180	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	130	
n-Propylbenzene	13	44	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	420	
Bromobenzene	13	13	U

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP3DL		
STATION LOCATION	MW-18		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	630	630	U *
Chloromethane	630	630	U *
Vinyl chloride	630	630	U *
Bromomethane	630	630	U *
Chloroethane	630	630	U *
Trichlorofluoromethane	630	630	U *
1,1-Dichloroethene	630	630	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	630	630	U *
Acetone	6300	6300	U *
Carbon Disulfide	630	630	U *
Methyl acetate	630	630	U *
Methylene chloride	630	630	U *
trans-1,2-Dichloroethene	630	630	U *
Methyl tert-butyl ether	630	630	U *
1,1-Dichloroethane	630	630	U *
cis-1,2-Dichloroethene	630	630	U *
2-Butanone	6300	6300	U *
Bromochloromethane	630	630	U *
Chloroform	630	630	U *
1,1,1-Trichloroethane	630	630	U *
Cyclohexane	630	1600	
Carbon tetrachloride	630	630	U *
Benzene	630	21000	
1,2-Dichloroethane	630	630	U *
Trichloroethene	630	630	U *
Methylcyclohexane	630	1100	
1,2-Dichloropropane	630	630	U *
Bromodichloromethane	630	630	U *
cis-1,3-Dichloropropene	630	630	U *
4-Methyl-2-pentanone	6300	6300	U *
Toluene	630	3900	
trans-1,3-Dichloropropene	630	630	U *
1,1,2-Trichloroethane	630	630	U *
Tetrachloroethene	630	630	U *
2-Hexanone	6300	6300	U *
Dibromochloromethane	630	630	U *
1,2-Dibromoethane	630	630	U *
Chlorobenzene	630	630	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3DL		
STATION LOCATION	MW-18		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	630	850	
o-Xylene	630	630	U *
m,p-Xylene	630	2900	
Styrene	630	630	U *
Bromoform	630	630	U *
Isopropylbenzene	630	630	U *
1,1,2,2-Tetrachloroethane	630	630	U *
1,3-Dichlorobenzene	630	630	U *
1,4-Dichlorobenzene	630	630	U *
1,2-Dichlorobenzene	630	630	U *
1,2-Dibromo-3-chloropropane	630	630	U *
1,2,4-Trichlorobenzene	630	630	U *
1,2,3-Trichlorobenzene	630	630	U *
1,3-Dichloropropane	630	630	U *
n-Butylbenzene	630	630	U *
sec-Butylbenzene	630	630	U *
tert-Butylbenzene	630	630	U *
2-Chlorotoluene	630	630	U *
4-Chlorotoluene	630	630	U *
Dibromomethane	630	630	U *
1,3,5-Trimethylbenzene	630	630	U *
2,2-Dichloropropane	630	630	U *
1,1-Dichloropropene	630	630	U *
Hexachlorobutadiene	630	630	U *
p-Isopropyltoluene	630	630	U *
Naphthalene	630	320	*
n-Propylbenzene	630	630	U *
1,1,1,2-Tetrachloroethane	630	630	U *
1,2,3-Trichloropropane	630	630	U *
1,2,4-Trimethylbenzene	630	410	*
Bromobenzene	630	630	U *

Volume (ml) : 25

Dilution Factor : 1250

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP3 (SIM)		
STATION LOCATION		MW-18	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP4		
STATION LOCATION	MW-4		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	3.5	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	6.1	
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP4		
STATION LOCATION	MW-4		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.58	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP4 (SIM)		
STATION LOCATION	MW-4		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP4RE (SIM)		
STATION LOCATION	ADJ	MW-4	
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP5		
STATION LOCATION	MW-9		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	19	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	1.1	
Methylcyclohexane	0.50	49	*
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.1	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP5		
STATION LOCATION	MW-9		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.91	
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP5DL		
STATION LOCATION	MW-9		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	2.5	2.5	U *
Chloromethane	2.5	2.5	U *
Vinyl chloride	2.5	2.5	U *
Bromomethane	2.5	2.5	U *
Chloroethane	2.5	2.5	U *
Trichlorofluoromethane	2.5	2.5	U *
1,1-Dichloroethene	2.5	2.5	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	2.5	2.5	U *
Acetone	25	25	U *
Carbon Disulfide	2.5	2.5	U *
Methyl acetate	2.5	2.5	U *
Methylene chloride	2.5	2.5	U *
trans-1,2-Dichloroethene	2.5	2.5	U *
Methyl tert-butyl ether	2.5	2.5	U *
1,1-Dichloroethane	2.5	2.5	U *
cis-1,2-Dichloroethene	2.5	2.5	U *
2-Butanone	25	25	U *
Bromochloromethane	2.5	2.5	U *
Chloroform	2.5	2.5	U *
1,1,1-Trichloroethane	2.5	2.5	U *
Cyclohexane	2.5	12	U *
Carbon tetrachloride	2.5	2.5	U *
Benzene	2.5	2.5	U *
1,2-Dichloroethane	2.5	2.5	U *
Trichloroethene	2.5	1.2	U *
Methylcyclohexane	2.5	39	U *
1,2-Dichloropropane	2.5	2.5	U *
Bromodichloromethane	2.5	2.5	U *
cis-1,3-Dichloropropene	2.5	2.5	U *
4-Methyl-2-pentanone	25	25	U *
Toluene	2.5	2.5	U *
trans-1,3-Dichloropropene	2.5	2.5	U *
1,1,2-Trichloroethane	2.5	2.5	U *
Tetrachloroethene	2.5	0.98	U *
2-Hexanone	25	25	U *
Dibromochloromethane	2.5	2.5	U *
1,2-Dibromoethane	2.5	2.5	U *
Chlorobenzene	2.5	2.5	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP5DL		
STATION LOCATION	MW-9		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	2.5	2.5	U*
o-Xylene	2.5	2.5	U*
m,p-Xylene	2.5	2.5	U*
Styrene	2.5	2.5	U*
Bromoform	2.5	2.5	U*
Isopropylbenzene	2.5	2.5	U*
1,1,2,2-Tetrachloroethane	2.5	2.5	U*
1,3-Dichlorobenzene	2.5	2.5	U*
1,4-Dichlorobenzene	2.5	2.5	U*
1,2-Dichlorobenzene	2.5	2.5	U*
1,2-Dibromo-3-chloropropane	2.5	2.5	U*
1,2,4-Trichlorobenzene	2.5	2.5	U*
1,2,3-Trichlorobenzene	2.5	2.5	U*
1,3-Dichloropropane	2.5	2.5	U*
n-Butylbenzene	2.5	2.5	U*
sec-Butylbenzene	2.5	2.5	U*
tert-Butylbenzene	2.5	2.5	U*
2-Chlorotoluene	2.5	2.5	U*
4-Chlorotoluene	2.5	2.5	U*
Dibromomethane	2.5	2.5	U*
1,3,5-Trimethylbenzene	2.5	2.5	U*
2,2-Dichloropropane	2.5	2.5	U*
1,1-Dichloropropene	2.5	2.5	U*
Hexachlorobutadiene	2.5	2.5	U*
p-Isopropyltoluene	2.5	2.5	U*
Naphthalene	2.5	2.5	U*
n-Propylbenzene	2.5	2.5	U*
1,1,1,2-Tetrachloroethane	2.5	2.5	U*
1,2,3-Trichloropropane	2.5	2.5	U*
1,2,4-Trimethylbenzene	2.5	2.5	U*
Bromobenzene	2.5	2.5	U*

Volume (ml) : 25

Dilution Factor : 5

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP5 (SIM)		
STATION LOCATION		MW-9	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP5RE (SIM)		
STATION LOCATION	ADJ	MW-9	
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP6		
STATION LOCATION	MW-19		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	13	13	U
Chloromethane	13	13	U
Vinyl chloride	13	13	UJ
Bromomethane	13	13	UJv
Chloroethane	13	13	U
Trichlorofluoromethane	13	13	U *
1,1-Dichloroethene	13	13	U
1,1,2-Trichloro-1,2,2-trifluoroethane	13	13	U *
Acetone	130	130	U
Carbon Disulfide	13	13	U
Methyl acetate	13	13	U *
Methylene chloride	13	12	U *
trans-1,2-Dichloroethene	13	13	U
Methyl tert-butyl ether	13	13	U *
1,1-Dichloroethane	13	13	U
cis-1,2-Dichloroethene	13	13	U
2-Butanone	130	130	U
Bromochloromethane	13	13	U
Chloroform	13	13	U
1,1,1-Trichloroethane	13	13	U *
Cyclohexane	13	540	U *
Carbon tetrachloride	13	13	U *
Benzene	13	3200	U *
1,2-Dichloroethane	13	13	U *
Trichloroethene	13	13	U
Methylcyclohexane	13	290	U
1,2-Dichloropropane	13	13	U
Bromodichloromethane	13	13	U
cis-1,3-Dichloropropene	13	13	U
4-Methyl-2-pentanone	130	130	U
Toluene	13	27	U
trans-1,3-Dichloropropene	13	13	U
1,1,2-Trichloroethane	13	13	U
Tetrachloroethene	13	13	U
2-Hexanone	130	130	U
Dibromochloromethane	13	13	U
1,2-Dibromoethane	13	13	U *
Chlorobenzene	13	13	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP6		
STATION LOCATION	MW-19		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	13	410	
o-Xylene	13	18	
m,p-Xylene	13	520	*
Styrene	13	13	U
Bromoform	13	13	U
Isopropylbenzene	13	21	
1,1,2,2-Tetrachloroethane	13	13	U
1,3-Dichlorobenzene	13	13	U
1,4-Dichlorobenzene	13	13	U
1,2-Dichlorobenzene	13	13	U
1,2-Dibromo-3-chloropropane	13	13	U
1,2,4-Trichlorobenzene	13	13	U
1,2,3-Trichlorobenzene	13	13	U
1,3-Dichloropropane	13	13	U
n-Butylbenzene	13	13	U
sec-Butylbenzene	13	13	U
tert-Butylbenzene	13	34	U
2-Chlorotoluene	13	13	U
4-Chlorotoluene	13	13	U
Dibromomethane	13	13	U
1,3,5-Trimethylbenzene	13	72	
2,2-Dichloropropane	13	13	U
1,1-Dichloropropene	13	13	U
Hexachlorobutadiene	13	13	U
p-Isopropyltoluene	13	13	U
Naphthalene	13	130	
n-Propylbenzene	13	33	
1,1,1,2-Tetrachloroethane	13	13	U
1,2,3-Trichloropropane	13	13	U
1,2,4-Trimethylbenzene	13	250	
Bromobenzene	13	13	U

Volume (ml) : 25

Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP6DL		
STATION LOCATION		MW-19	
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	250	250	U *
Chloromethane	250	250	U *
Vinyl chloride	250	250	U *
Bromomethane	250	250	U *
Chloroethane	250	250	U *
Trichlorofluoromethane	250	250	U
1,1-Dichloroethene	250	250	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	250	250	U
Acetone	2500	2500	U *
Carbon Disulfide	250	250	U *
Methyl acetate	250	250	U
Methylene chloride	250	250	U
trans-1,2-Dichloroethene	250	250	U *
Methyl tert-butyl ether	250	250	U
1,1-Dichloroethane	250	250	U *
cis-1,2-Dichloroethene	250	250	U *
2-Butanone	2500	2500	U *
Bromochloromethane	250	250	U *
Chloroform	250	250	U *
1,1,1-Trichloroethane	250	250	U
Cyclohexane	250	570	
Carbon tetrachloride	250	250	UJ
Benzene	250	3900	
1,2-Dichloroethane	250	250	U
Trichloroethene	250	250	U *
Methylcyclohexane	250	270	*
1,2-Dichloropropane	250	250	U *
Bromodichloromethane	250	250	U *
cis-1,3-Dichloropropene	250	250	U *
4-Methyl-2-pentanone	2500	2500	U *
Toluene	250	46	*
trans-1,3-Dichloropropene	250	250	U *
1,1,2-Trichloroethane	250	250	U *
Tetrachloroethene	250	250	U *
2-Hexanone	2500	2500	U *
Dibromochloromethane	250	250	U *
1,2-Dibromoethane	250	250	U *
Chlorobenzene	250	250	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP6DL		
STATION LOCATION	MW-19		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	250	370	*
o-Xylene	250	250	U *
m,p-Xylene	250	480	
Styrene	250	250	U *
Bromoform	250	250	U *
Isopropylbenzene	250	250	U *
1,1,2,2-Tetrachloroethane	250	250	U *
1,3-Dichlorobenzene	250	250	U *
1,4-Dichlorobenzene	250	250	U *
1,2-Dichlorobenzene	250	250	U *
1,2-Dibromo-3-chloropropane	250	250	U *
1,2,4-Trichlorobenzene	250	250	U *
1,2,3-Trichlorobenzene	250	250	U *
1,3-Dichloropropane	250	250	U *
n-Butylbenzene	250	250	U *
sec-Butylbenzene	250	250	U *
tert-Butylbenzene	250	250	U *
2-Chlorotoluene	250	250	U *
4-Chlorotoluene	250	250	U *
Dibromomethane	250	250	U *
1,3,5-Trimethylbenzene	250	250	U *
2,2-Dichloropropane	250	250	U *
1,1-Dichloropropene	250	250	U *
Hexachlorobutadiene	250	250	U *
p-Isopropyltoluene	250	250	U *
Naphthalene	250	170	*
n-Propylbenzene	250	250	U *
1,1,1,2-Tetrachloroethane	250	250	U *
1,2,3-Trichloropropane	250	250	U *
1,2,4-Trimethylbenzene	250	200	*
Bromobenzene	250	250	U *

Volume (ml) : 25

Dilution Factor : 500

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP6 (SIM)		
STATION LOCATION		MW-19	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	1.3	1.3	U
1,2-Dibromo-3-chloropropane	1.3	1.3	U *

Volume (ml) : 25
 Dilution Factor : 25

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP7		
STATION LOCATION	MW-20		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	2.4	
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP7		
STATION LOCATION	MW-20		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJv
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	1.0	UM
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP7 (SIM)		
STATION LOCATION		MW-20	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP8		
STATION LOCATION	MW-21		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.78	
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	1.1	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.53	
Trichloroethene	0.50	2.3	J ^A
Methylcyclohexane	0.50	130	*
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	1.2	J ^A
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP8		
STATION LOCATION		MW-21	
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	5.9	J ^A
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	2.0	J ^A
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.27	LJ
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	1.8	UM
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	1.6	N
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP8DL		
STATION LOCATION	MW-21		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	5.0	5.0	U*
Chloromethane	5.0	5.0	U*
Vinyl chloride	5.0	5.0	U*
Bromomethane	5.0	5.0	U*
Chloroethane	5.0	5.0	U*
Trichlorofluoromethane	5.0	5.0	U*
1,1-Dichloroethene	5.0	5.0	U*
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	5.0	U*
Acetone	50	50	U*
Carbon Disulfide	5.0	5.0	U*
Methyl acetate	5.0	5.0	U*
Methylene chloride	5.0	2.3	U*
trans-1,2-Dichloroethene	5.0	5.0	U*
Methyl tert-butyl ether	5.0	5.0	U*
1,1-Dichloroethane	5.0	5.0	U*
cis-1,2-Dichloroethene	5.0	5.0	U*
2-Butanone	50	50	U*
Bromochloromethane	5.0	5.0	U*
Chloroform	5.0	5.0	U*
1,1,1-Trichloroethane	5.0	5.0	U*
Cyclohexane	5.0	5.0	U*
Carbon tetrachloride	5.0	5.0	U*
Benzene	5.0	5.0	U*
1,2-Dichloroethane	5.0	5.0	U*
Trichloroethene	5.0	2.7	U*
Methylcyclohexane	5.0	120	U*
1,2-Dichloropropane	5.0	5.0	U*
Bromodichloromethane	5.0	5.0	U*
cis-1,3-Dichloropropene	5.0	5.0	U*
4-Methyl-2-pentanone	50	50	U*
Toluene	5.0	5.0	U*
trans-1,3-Dichloropropene	5.0	5.0	U*
1,1,2-Trichloroethane	5.0	5.0	U*
Tetrachloroethene	5.0	5.0	U*
2-Hexanone	50	50	U*
Dibromochloromethane	5.0	5.0	U*
1,2-Dibromoethane	5.0	5.0	U*
Chlorobenzene	5.0	5.0	U*

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP8DL		
STATION LOCATION	MW-21		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	5.0	5.4	*
o-Xylene	5.0	5.0	U *
m,p-Xylene	5.0	5.0	U *
Styrene	5.0	5.0	U *
Bromoform	5.0	5.0	U *
Isopropylbenzene	5.0	5.0	U *
1,1,2,2-Tetrachloroethane	5.0	5.0	U *
1,3-Dichlorobenzene	5.0	5.0	U *
1,4-Dichlorobenzene	5.0	5.0	U *
1,2-Dichlorobenzene	5.0	5.0	U *
1,2-Dibromo-3-chloropropane	5.0	5.0	U *
1,2,4-Trichlorobenzene	5.0	5.0	U *
1,2,3-Trichlorobenzene	5.0	5.0	U *
1,3-Dichloropropane	5.0	5.0	U *
n-Butylbenzene	5.0	5.0	U *
sec-Butylbenzene	5.0	5.0	U *
tert-Butylbenzene	5.0	5.0	U *
2-Chlorotoluene	5.0	5.0	U *
4-Chlorotoluene	5.0	5.0	U *
Dibromomethane	5.0	5.0	U *
1,3,5-Trimethylbenzene	5.0	5.0	U *
2,2-Dichloropropane	5.0	5.0	U *
1,1-Dichloropropene	5.0	5.0	U *
Hexachlorobutadiene	5.0	5.0	U *
p-Isopropyltoluene	5.0	5.0	U *
Naphthalene	5.0	5.0	U *
n-Propylbenzene	5.0	5.0	U *
1,1,1,2-Tetrachloroethane	5.0	5.0	U *
1,2,3-Trichloropropane	5.0	5.0	U *
1,2,4-Trimethylbenzene	5.0	5.0	U *
Bromobenzene	5.0	5.0	U *

Volume (ml) : 25

Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP8 (SIM)		
STATION LOCATION		MW-21	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP8RE (SIM)		
STATION LOCATION		MW-21	
Volatile	ADJ	RESULT	FLAG
	CRQL		
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP9		
STATION LOCATION	MW-22		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.28	UJ
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	1.2	
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.3	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP9		
STATION LOCATION	MW-22		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP9 (SIM)		
STATION LOCATION	MW-22		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	UJv
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP9RE (SIM)		
STATION LOCATION	MW-22		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ0		
STATION LOCATION	MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.73	
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	1.0	
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.33	LJ
1,2-Dichloroethane	0.50	0.48	LJ
Trichloroethene	0.50	2.2	
Methylcyclohexane	0.50	120	*
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	1.1	
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ0		
STATION LOCATION	MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	5.6	
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	1.9	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	2.2	UM
n-Propylbenzene	0.50	2.5	
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ0DL		
STATION LOCATION	MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	5.0	5.0	U *
Chloromethane	5.0	5.0	U *
Vinyl chloride	5.0	5.0	U *
Bromomethane	5.0	5.0	U *
Chloroethane	5.0	5.0	U *
Trichlorofluoromethane	5.0	5.0	U *
1,1-Dichloroethene	5.0	5.0	U *
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0	5.0	U *
Acetone	50	50	U *
Carbon Disulfide	5.0	5.0	U *
Methyl acetate	5.0	5.0	U *
Methylene chloride	5.0	5.0	U *
trans-1,2-Dichloroethene	5.0	5.0	U *
Methyl tert-butyl ether	5.0	5.0	U *
1,1-Dichloroethane	5.0	5.0	U *
cis-1,2-Dichloroethene	5.0	5.0	U *
2-Butanone	50	50	U *
Bromochloromethane	5.0	5.0	U *
Chloroform	5.0	5.0	U *
1,1,1-Trichloroethane	5.0	5.0	U *
Cyclohexane	5.0	5.0	U *
Carbon tetrachloride	5.0	5.0	U *
Benzene	5.0	5.0	U *
1,2-Dichloroethane	5.0	5.0	U *
Trichloroethene	5.0	2.9	U *
Methylcyclohexane	5.0	120	U *
1,2-Dichloropropane	5.0	5.0	U *
Bromodichloromethane	5.0	5.0	U *
cis-1,3-Dichloropropene	5.0	5.0	U *
4-Methyl-2-pentanone	50	50	U *
Toluene	5.0	5.0	U *
trans-1,3-Dichloropropene	5.0	5.0	U *
1,1,2-Trichloroethane	5.0	5.0	U *
Tetrachloroethene	5.0	5.0	U *
2-Hexanone	50	50	U *
Dibromochloromethane	5.0	5.0	U *
1,2-Dibromoethane	5.0	5.0	U *
Chlorobenzene	5.0	5.0	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ0DL		
STATION LOCATION	MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	5.0	5.7	*
o-Xylene	5.0	5.0	U *
m,p-Xylene	5.0	5.0	U *
Styrene	5.0	5.0	U *
Bromoform	5.0	5.0	U *
Isopropylbenzene	5.0	5.0	U *
1,1,2,2-Tetrachloroethane	5.0	5.0	U *
1,3-Dichlorobenzene	5.0	5.0	U *
1,4-Dichlorobenzene	5.0	5.0	U *
1,2-Dichlorobenzene	5.0	5.0	U *
1,2-Dibromo-3-chloropropane	5.0	5.0	U *
1,2,4-Trichlorobenzene	5.0	5.0	U *
1,2,3-Trichlorobenzene	5.0	5.0	U *
1,3-Dichloropropane	5.0	5.0	U *
n-Butylbenzene	5.0	5.0	U *
sec-Butylbenzene	5.0	5.0	U *
tert-Butylbenzene	5.0	5.0	U *
2-Chlorotoluene	5.0	5.0	U *
4-Chlorotoluene	5.0	5.0	U *
Dibromomethane	5.0	5.0	U *
1,3,5-Trimethylbenzene	5.0	5.0	U *
2,2-Dichloropropane	5.0	5.0	U *
1,1-Dichloropropene	5.0	5.0	U *
Hexachlorobutadiene	5.0	5.0	U *
p-Isopropyltoluene	5.0	5.0	U *
Naphthalene	5.0	2.9	*
n-Propylbenzene	5.0	5.0	U *
1,1,1,2-Tetrachloroethane	5.0	5.0	U *
1,2,3-Trichloropropane	5.0	5.0	U *
1,2,4-Trimethylbenzene	5.0	5.0	U *
Bromobenzene	5.0	5.0	U *

Volume (ml) : 25

Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ0 (SIM)		
STATION LOCATION		MW-21-D	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ0RE (SIM)		
STATION LOCATION	MW-21-D		
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ1		
STATION LOCATION	MW-4-D		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	3.8	
Carbon tetrachloride	0.50	0.50	UJ
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	UJv
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	UJv
1,1,2-Trichloroethane	0.50	0.50	UJv
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	6.8	
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U *
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ1		
STATION LOCATION	MW-4-D		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.67	
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.50	U
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ1 (SIM)		
STATION LOCATION	MW-4-D		
Volatile	ADJ	RESULT	FLAG
	CRQL		
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ5		
STATION LOCATION	TB-1		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ5		
STATION LOCATION	TB-1		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.32	L
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ5 (SIM)		
STATION LOCATION	ADJ	TB-1	
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ6		
STATION LOCATION	TB-2		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.68	UM
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.50	U
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ6		
STATION LOCATION	TB-2		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJv
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U*
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.66	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ6 (SIM)		
STATION LOCATION		TB-2	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ7		
STATION LOCATION	FB-1		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.50	U
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.27	UJ
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ7		
STATION LOCATION		FB-1	
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.50	U
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	UJv
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.66	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.14	LJ
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T: Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ7 (SIM)		
STATION LOCATION		FB-1	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ8		
STATION LOCATION	FB-2		
Volatile	ADJ CRQL	RESULT	FLAG
Dichlorodifluoromethane	0.50	0.50	U
Chloromethane	0.50	0.50	U
Vinyl chloride	0.50	0.50	UJ
Bromomethane	0.50	0.50	UJv
Chloroethane	0.50	0.50	U
Trichlorofluoromethane	0.50	0.50	U
1,1-Dichloroethene	0.50	0.50	U
1,1,2-Trichloro-1,2,2-trifluoroethane	0.50	0.50	U
Acetone	5.0	5.0	U
Carbon Disulfide	0.50	0.50	U
Methyl acetate	0.50	0.50	U
Methylene chloride	0.50	0.50	U
trans-1,2-Dichloroethene	0.50	0.50	U
Methyl tert-butyl ether	0.50	0.50	U
1,1-Dichloroethane	0.50	0.50	U
cis-1,2-Dichloroethene	0.50	0.50	U
2-Butanone	5.0	5.0	U
Bromochloromethane	0.50	0.50	U
Chloroform	0.50	0.50	U
1,1,1-Trichloroethane	0.50	0.50	U
Cyclohexane	0.50	0.50	U
Carbon tetrachloride	0.50	0.50	U
Benzene	0.50	0.42	UJ
1,2-Dichloroethane	0.50	0.50	U
Trichloroethene	0.50	0.50	U
Methylcyclohexane	0.50	0.50	U
1,2-Dichloropropane	0.50	0.50	U
Bromodichloromethane	0.50	0.50	U
cis-1,3-Dichloropropene	0.50	0.50	U
4-Methyl-2-pentanone	5.0	5.0	U
Toluene	0.50	0.38	UJ
trans-1,3-Dichloropropene	0.50	0.50	U
1,1,2-Trichloroethane	0.50	0.50	U
Tetrachloroethene	0.50	0.50	U
2-Hexanone	5.0	5.0	U
Dibromochloromethane	0.50	0.50	U
1,2-Dibromoethane	0.50	0.50	U*
Chlorobenzene	0.50	0.50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ8		
STATION LOCATION	FB-2		
Volatile	ADJ CRQL	RESULT	FLAG
Ethylbenzene	0.50	0.50	U
o-Xylene	0.50	0.50	U
m,p-Xylene	0.50	0.33	LJ
Styrene	0.50	0.50	U
Bromoform	0.50	0.50	U
Isopropylbenzene	0.50	0.50	U
1,1,2,2-Tetrachloroethane	0.50	0.50	U
1,3-Dichlorobenzene	0.50	0.50	U
1,4-Dichlorobenzene	0.50	0.50	U
1,2-Dichlorobenzene	0.50	0.50	U
1,2-Dibromo-3-chloropropane	0.50	0.50	U *
1,2,4-Trichlorobenzene	0.50	0.50	U
1,2,3-Trichlorobenzene	0.50	0.50	U
1,3-Dichloropropane	0.50	0.50	U
n-Butylbenzene	0.50	0.50	U
sec-Butylbenzene	0.50	0.50	U
tert-Butylbenzene	0.50	0.50	U
2-Chlorotoluene	0.50	0.50	U
4-Chlorotoluene	0.50	0.50	U
Dibromomethane	0.50	0.50	U
1,3,5-Trimethylbenzene	0.50	0.50	U
2,2-Dichloropropane	0.50	0.50	U
1,1-Dichloropropene	0.50	0.50	U
Hexachlorobutadiene	0.50	0.50	U
p-Isopropyltoluene	0.50	0.50	U
Naphthalene	0.50	0.97	
n-Propylbenzene	0.50	0.50	U
1,1,1,2-Tetrachloroethane	0.50	0.50	U
1,2,3-Trichloropropane	0.50	0.50	U
1,2,4-Trimethylbenzene	0.50	0.50	U
Bromobenzene	0.50	0.50	U

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ8 (SIM)		
STATION LOCATION		FB-2	
Volatile	ADJ CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U
1,2-Dibromo-3-chloropropane	0.050	0.050	UJv

Volume (ml) : 25
Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ8RE (SIM)		
STATION LOCATION	ADJ	FB-2	
Volatile	CRQL	RESULT	FLAG
1,2-Dibromoethane	0.050	0.050	U *
1,2-Dibromo-3-chloropropane	0.050	0.050	U *

Volume (ml) : 25

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No.: 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0		
STATION LOCATION	MW-14		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	U
Benzaldehyde	50	50	U
Phenol	50	1900	*
Bis(2-Chloroethyl)ether	50	50	U
2-Chlorophenol	50	50	U
2-Methylphenol	50	1800	*
2,2'-Oxybis(1-chloropropane)	50	50	U
Acetophenone	50	50	U
4-Methylphenol	50	1200	*
N-Nitroso-di-n-propylamine	50	50	U
Hexachloroethane	50	50	U
Nitrobenzene	50	50	U
Isophorone	50	50	U
2-Nitrophenol	50	50	U
2,4-Dimethylphenol	50	900	*
Bis(2-chloroethoxy)methane	50	50	U
2,4-Dichlorophenol	50	50	U
Naphthalene	50	340	*
4-Chloroaniline	50	50	U
Hexachlorobutadiene	50	50	U*
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	83	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	4.2	U
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	U
Dimethylphthalate	50	50	U
2,6-Dinitrotoluene	50	50	U
Acenaphthylene	50	50	U*
3-Nitroaniline	100	100	U
Acenaphthene	50	50	U*
2,4-Dinitrophenol	100	100	U
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP0		
STATION LOCATION	MW-14		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	50	50	U
Fluorene	50	50	U*
4-Chlorophenyl-phenylether	50	50	U
4-Nitroaniline	100	100	U
4,6-Dinitro-2-methylphenol	100	100	U
N-Nitrosodiphenylamine	50	50	U
1,2,4,5-Tetrachlorobenzene	50	50	U
4-Bromophenyl-phenylether	50	50	U
Hexachlorobenzene	50	50	U
Atrazine	50	50	U
Pentachlorophenol	100	100	U*
Phenanthrene	50	50	U*
Anthracene	50	50	U*
Carbazole	50	50	U
Di-n-butylphthalate	50	50	U
Fluoranthene	50	50	U*
Pyrene	50	50	U*
Butylbenzylphthalate	50	50	U
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U*
Chrysene	50	50	U*
Bis(2-ethylhexyl)phthalate	50	50	U
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U*
Benzo(k)fluoranthene	50	50	U*
Benzo(a)pyrene	50	50	U*
Indeno(1,2,3-cd)pyrene	50	50	U*
Dibenzo(a,h)anthracene	50	50	U*
Benzo(g,h,i)perylene	50	50	U*
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml) : 1000

Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0DL		
STATION LOCATION		MW-14	
Semivolatiles	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	500	500	U *
Aniline	500	500	U *
Benzaldehyde	250	250	U *
Phenol	250	1200	
Bis(2-Chloroethyl)ether	250	250	U *
2-Chlorophenol	250	250	U *
2-Methylphenol	250	1200	
2,2'-Oxybis(1-chloropropane)	250	250	U *
Acetophenone	250	250	U *
4-Methylphenol	250	830	
N-Nitroso-di-n-propylamine	250	250	U *
Hexachloroethane	250	250	U *
Nitrobenzene	250	250	U *
Isophorone	250	250	U *
2-Nitrophenol	250	250	U *
2,4-Dimethylphenol	250	620	
Bis(2-chloroethoxy)methane	250	250	U *
2,4-Dichlorophenol	250	250	U *
Naphthalene	250	250	*
4-Chloroaniline	250	250	U *
Hexachlorobutadiene	250	250	U *
Caprolactam	250	250	U *
4-Chloro-3-methylphenol	250	250	U *
2-Methylnaphthalene	250	60	*
Hexachlorocyclopentadiene	250	250	U *
2,4,6-Trichlorophenol	250	250	U *
2,4,5-Trichlorophenol	250	250	U *
1,1'-Biphenyl	250	250	U *
2-Chloronaphthalene	250	250	U *
2-Nitroaniline	500	500	U *
Dimethylphthalate	250	250	U *
2,6-Dinitrotoluene	250	250	U *
Acenaphthylene	250	250	U *
3-Nitroaniline	500	500	U *
Acenaphthene	250	250	U *
2,4-Dinitrophenol	500	500	U *
4-Nitrophenol	500	500	U *
Dibenzofuran	250	250	U *
2,4-Dinitrotoluene	250	250	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP0DL		
STATION LOCATION	MW-14		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	250	250	U *
Fluorene	250	250	U *
4-Chlorophenyl-phenylether	250	250	U *
4-Nitroaniline	500	500	U *
4,6-Dinitro-2-methylphenol	500	500	U *
N-Nitrosodiphenylamine	250	250	U *
1,2,4,5-Tetrachlorobenzene	250	250	U *
4-Bromophenyl-phenylether	250	250	U *
Hexachlorobenzene	250	250	U *
Atrazine	250	250	U *
Pentachlorophenol	500	500	U *
Phenanthrene	250	250	U *
Anthracene	250	250	U *
Carbazole	250	250	U *
Di-n-butylphthalate	250	250	U *
Fluoranthene	250	250	U *
Pyrene	250	250	U *
Butylbenzylphthalate	250	250	U *
3,3'-Dichlorobenzidine	250	250	U *
Benzo(a)anthracene	250	250	U *
Chrysene	250	250	U *
Bis(2-ethylhexyl)phthalate	250	250	U *
Di-n-octylphthalate	250	250	U *
Benzo(b)fluoranthene	250	250	U *
Benzo(k)fluoranthene	250	250	U *
Benzo(a)pyrene	250	250	U *
Indeno(1,2,3-cd)pyrene	250	250	U *
Dibenzo(a,h)anthracene	250	250	U *
Benzo(g,h,i)perylene	250	250	U *
2,3,4,6-Tetrachlorophenol	250	250	U *

Volume (ml) : 1000

Dilution Factor : 50

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP0 (SIM)		
STATION LOCATION	MW-14		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	1.0	240	*
2-Methylnaphthalene	1.0	140	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U
Fluorene	1.0	0.49	LJ
Pentachlorophenol	2.0	2.0	U
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	U
Fluoranthene	1.0	1.0	U
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	U
Chrysene	1.0	1.0	U
Benzo(b)fluoranthene	1.0	1.0	U
Benzo(k)fluoranthene	1.0	1.0	U
Benzo(a)pyrene	1.0	1.0	U
Indeno(1,2,3-cd)pyrene	1.0	1.0	U
Dibenzo(a,h)anthracene	1.0	1.0	U
Benzo(g,h,i)perylene	1.0	1.0	U

Volume (ml) : 1000
Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP0DL (SIM)		
STATION LOCATION	MW-14		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	40	330	*
2-Methylnaphthalene	40	99	*
Acenaphthylene	40	40	U *
Acenaphthene	40	40	U *
Fluorene	40	40	U *
Pentachlorophenol	80	80	U *
Phenanthrene	40	40	U *
Anthracene	40	40	U *
Fluoranthene	40	40	U *
Pyrene	40	40	U *
Benzo(a)anthracene	40	40	U *
Chrysene	40	40	U *
Benzo(b)fluoranthene	40	40	U *
Benzo(k)fluoranthene	40	40	U *
Benzo(a)pyrene	40	40	U *
Indeno(1,2,3-cd)pyrene	40	40	U *
Dibenzo(a,h)anthracene	40	40	U *
Benzo(g,h,i)perylene	40	40	U *

Volume (ml) : 1000

Dilution Factor : 400

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION	MW-16		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	200	200	U
Aniline	200	200	U
Benzaldehyde	100	100	U
Phenol	100	100	U
Bis(2-Chloroethyl)ether	100	100	U
2-Chlorophenol	100	100	U
2-Methylphenol	100	100	U
2,2'-Oxybis(1-chloropropane)	100	100	U
Acetophenone	100	100	U
4-Methylphenol	100	100	U
N-Nitroso-di-n-propylamine	100	100	U
Hexachloroethane	100	100	U
Nitrobenzene	100	100	U
Isophorone	100	100	U
2-Nitrophenol	100	100	U
2,4-Dimethylphenol	100	100	U
Bis(2-chloroethoxy)methane	100	100	U
2,4-Dichlorophenol	100	100	U
Naphthalene	100	12	*
4-Chloroaniline	100	100	U
Hexachlorobutadiene	100	100	U
Caprolactam	100	100	U
4-Chloro-3-methylphenol	100	100	U
2-Methylnaphthalene	100	100	U
Hexachlorocyclopentadiene	100	100	U
2,4,6-Trichlorophenol	100	100	U
2,4,5-Trichlorophenol	100	100	U
1,1'-Biphenyl	100	100	U
2-Chloronaphthalene	100	100	U
2-Nitroaniline	200	200	U
Dimethylphthalate	100	100	U
2,6-Dinitrotoluene	100	100	U
Acenaphthylene	100	100	U
3-Nitroaniline	200	200	U
Acenaphthene	100	100	U
2,4-Dinitrophenol	200	200	U
4-Nitrophenol	200	200	U
Dibenzofuran	100	100	U
2,4-Dinitrotoluene	100	100	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP1		
STATION LOCATION	MW-16		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	100	100	U
Fluorene	100	100	U*
4-Chlorophenyl-phenylether	100	100	U
4-Nitroaniline	200	200	U
4,6-Dinitro-2-methylphenol	200	200	U
N-Nitrosodiphenylamine	100	100	U
1,2,4,5-Tetrachlorobenzene	100	100	U
4-Bromophenyl-phenylether	100	100	U
Hexachlorobenzene	100	100	U
Atrazine	100	100	U
Pentachlorophenol	200	200	U*
Phenanthrene	100	100	U*
Anthracene	100	100	U*
Carbazole	100	100	U
Di-n-butylphthalate	100	100	U
Fluoranthene	100	100	U*
Pyrene	100	100	U*
Butylbenzylphthalate	100	100	U
3,3'-Dichlorobenzidine	100	100	U
Benzo(a)anthracene	100	100	U*
Chrysene	100	100	U*
Bis(2-ethylhexyl)phthalate	100	100	U
Di-n-octylphthalate	100	100	U
Benzo(b)fluoranthene	100	100	U*
Benzo(k)fluoranthene	100	100	U*
Benzo(a)pyrene	100	100	U*
Indeno(1,2,3-cd)pyrene	100	100	U*
Dibenzo(a,h)anthracene	100	100	U*
Benzo(g,h,i)perylene	100	100	U*
2,3,4,6-Tetrachlorophenol	100	100	U

Volume (ml) : 1000
 Dilution Factor : 20

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP1 (SIM)		
STATION LOCATION		MW-16	
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	2.0	8.1	*
2-Methylnaphthalene	2.0	2.7	
Acenaphthylene	2.0	2.0	U
Acenaphthene	2.0	2.0	U
Fluorene	2.0	2.0	U
Pentachlorophenol	4.0	4.0	U
Phenanthrene	2.0	2.0	U
Anthracene	2.0	2.0	U
Fluoranthene	2.0	2.0	U
Pyrene	2.0	2.0	U
Benzo(a)anthracene	2.0	2.0	U
Chrysene	2.0	2.0	U
Benzo(b)fluoranthene	2.0	2.0	U
Benzo(k)fluoranthene	2.0	2.0	U
Benzo(a)pyrene	2.0	2.0	U
Indeno(1,2,3-cd)pyrene	2.0	2.0	U
Dibenzo(a,h)anthracene	2.0	2.0	U
Benzo(g,h,i)perylene	2.0	2.0	U

Volume (ml) : 1000
Dilution Factor : 20

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2		
STATION LOCATION	MW-17		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	10	10	U
Aniline	10	10	U
Benzaldehyde	5.0	5.0	U
Phenol	5.0	7.2	U
Bis(2-Chloroethyl)ether	5.0	5.0	U
2-Chlorophenol	5.0	5.0	U
2-Methylphenol	5.0	5.0	U
2,2'-Oxybis(1-chloropropane)	5.0	5.0	U
Acetophenone	5.0	5.0	U
4-Methylphenol	5.0	5.0	U
N-Nitroso-di-n-propylamine	5.0	5.0	U
Hexachloroethane	5.0	5.0	U
Nitrobenzene	5.0	5.0	U
Isophorone	5.0	5.0	U
2-Nitrophenol	5.0	5.0	U
2,4-Dimethylphenol	5.0	5.0	U
Bis(2-chloroethoxy)methane	5.0	5.0	U
2,4-Dichlorophenol	5.0	5.0	U
Naphthalene	5.0	52	U *
4-Chloroaniline	5.0	5.0	U *
Hexachlorobutadiene	5.0	5.0	U *
Caprolactam	5.0	5.0	U
4-Chloro-3-methylphenol	5.0	5.0	U
2-Methylnaphthalene	5.0	18	U
Hexachlorocyclopentadiene	5.0	5.0	U
2,4,6-Trichlorophenol	5.0	5.0	U
2,4,5-Trichlorophenol	5.0	5.0	U
1,1'-Biphenyl	5.0	0.58	U
2-Chloronaphthalene	5.0	5.0	U
2-Nitroaniline	10	10	U
Dimethylphthalate	5.0	5.0	U
2,6-Dinitrotoluene	5.0	5.0	U
Acenaphthylene	5.0	5.0	U *
3-Nitroaniline	10	10	U
Acenaphthene	5.0	5.0	U *
2,4-Dinitrophenol	10	10	U
4-Nitrophenol	10	10	U
Dibenzofuran	5.0	5.0	U
2,4-Dinitrotoluene	5.0	5.0	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2		
STATION LOCATION	MW-17		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	5.0	5.0	U
Fluorene	5.0	0.46	*
4-Chlorophenyl-phenylether	5.0	5.0	U
4-Nitroaniline	10	10	U
4,6-Dinitro-2-methylphenol	10	10	U
N-Nitrosodiphenylamine	5.0	5.0	U
1,2,4,5-Tetrachlorobenzene	5.0	5.0	U
4-Bromophenyl-phenylether	5.0	5.0	U
Hexachlorobenzene	5.0	5.0	U
Atrazine	5.0	5.0	U
Pentachlorophenol	10	10	U*
Phenanthrene	5.0	0.29	*
Anthracene	5.0	5.0	U*
Carbazole	5.0	5.0	U
Di-n-butylphthalate	5.0	5.0	U
Fluoranthene	5.0	5.0	U*
Pyrene	5.0	5.0	U*
Butylbenzylphthalate	5.0	5.0	U
3,3'-Dichlorobenzidine	5.0	5.0	U
Benzo(a)anthracene	5.0	5.0	U*
Chrysene	5.0	5.0	U*
Bis(2-ethylhexyl)phthalate	5.0	2.0	LJ
Di-n-octylphthalate	5.0	5.0	U
Benzo(b)fluoranthene	5.0	5.0	U*
Benzo(k)fluoranthene	5.0	5.0	U*
Benzo(a)pyrene	5.0	5.0	U*
Indeno(1,2,3-cd)pyrene	5.0	5.0	U*
Dibenzo(a,h)anthracene	5.0	5.0	U*
Benzo(g,h,i)perylene	5.0	5.0	U*
2,3,4,6-Tetrachlorophenol	5.0	5.0	U

Volume (ml) : 1000
 Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP2 (SIM)		
STATION LOCATION	MW-17		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	0.10	61	*
2-Methylnaphthalene	0.10	49	*
Acenaphthylene	0.10	0.10	U
Acenaphthene	0.10	0.23	
Fluorene	0.10	0.33	
Pentachlorophenol	0.20	0.20	U
Phenanthrene	0.10	0.13	
Anthracene	0.10	0.10	U
Fluoranthene	0.10	0.10	U
Pyrene	0.10	0.10	U
Benzo(a)anthracene	0.10	0.10	U
Chrysene	0.10	0.10	U
Benzo(b)fluoranthene	0.10	0.10	U
Benzo(k)fluoranthene	0.10	0.10	U
Benzo(a)pyrene	0.10	0.10	U
Indeno(1,2,3-cd)pyrene	0.10	0.10	U
Dibenzo(a,h)anthracene	0.10	0.10	U
Benzo(g,h,i)perylene	0.10	0.10	U

Volume (ml) : 1000

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2DL (SIM)		
STATION LOCATION	MW-17		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	5.0	37	*
2-Methylnaphthalene	5.0	24	*
Acenaphthylene	5.0	5.0	U *
Acenaphthene	5.0	5.0	U *
Fluorene	5.0	5.0	U *
Pentachlorophenol	10	10	U *
Phenanthrene	5.0	5.0	U *
Anthracene	5.0	5.0	U *
Fluoranthene	5.0	5.0	U *
Pyrene	5.0	5.0	U *
Benzo(a)anthracene	5.0	5.0	U *
Chrysene	5.0	5.0	U *
Benzo(b)fluoranthene	5.0	5.0	U *
Benzo(k)fluoranthene	5.0	5.0	U *
Benzo(a)pyrene	5.0	5.0	U *
Indeno(1,2,3-cd)pyrene	5.0	5.0	U *
Dibenzo(a,h)anthracene	5.0	5.0	U *
Benzo(g,h,i)perylene	5.0	5.0	U *

Volume (ml) : 1000
Dilution Factor : 50

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP2RE (SIM)		
STATION LOCATION	MW-17		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	0.10	62	*
2-Methylnaphthalene	0.10	47	*
Acenaphthylene	0.10	0.10	U *
Acenaphthene	0.10	0.21	*
Fluorene	0.10	0.32	*
Pentachlorophenol	0.20	0.20	U *
Phenanthrene	0.10	0.13	*
Anthracene	0.10	0.10	U *
Fluoranthene	0.10	0.10	U *
Pyrene	0.10	0.10	U *
Benzo(a)anthracene	0.10	0.10	U *
Chrysene	0.10	0.10	U *
Benzo(b)fluoranthene	0.10	0.10	U *
Benzo(k)fluoranthene	0.10	0.10	U *
Benzo(a)pyrene	0.10	0.10	U *
Indeno(1,2,3-cd)pyrene	0.10	0.10	U *
Dibenzo(a,h)anthracene	0.10	0.10	U *
Benzo(g,h,i)perylene	0.10	0.10	U *

Volume (ml) : 1000

Dilution Factor : 1

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3		
STATION LOCATION	MW-18		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	U
Benzaldehyde	50	50	U
Phenol	50	92	U
Bis(2-Chloroethyl)ether	50	50	U
2-Chlorophenol	50	50	U
2-Methylphenol	50	360	
2,2'-Oxybis(1-chloropropane)	50	50	U
Acetophenone	50	9.5	LJ
4-Methylphenol	50	190	
N-Nitroso-di-n-propylamine	50	50	U
Hexachloroethane	50	50	U
Nitrobenzene	50	50	U
Isophorone	50	50	U
2-Nitrophenol	50	50	U
2,4-Dimethylphenol	50	870	*
Bis(2-chloroethoxy)methane	50	50	U
2,4-Dichlorophenol	50	50	U
Naphthalene	50	190	*
4-Chloroaniline	50	50	U
Hexachlorobutadiene	50	50	U
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	51	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	50	U
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	U
Dimethylphthalate	50	50	U
2,6-Dinitrotoluene	50	50	U
Acenaphthylene	50	50	U
3-Nitroaniline	100	100	U
Acenaphthene	50	50	U
2,4-Dinitrophenol	100	100	U
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP3		
STATION LOCATION	MW-18		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	50	50	U
Fluorene	50	50	U *
4-Chlorophenyl-phenylether	50	50	U
4-Nitroaniline	100	100	U
4,6-Dinitro-2-methylphenol	100	100	U
N-Nitrosodiphenylamine	50	50	U
1,2,4,5-Tetrachlorobenzene	50	50	U
4-Bromophenyl-phenylether	50	50	U
Hexachlorobenzene	50	50	U
Atrazine	50	50	U
Pentachlorophenol	100	100	U *
Phenanthrene	50	50	U *
Anthracene	50	50	U *
Carbazole	50	50	U
Di-n-butylphthalate	50	50	U
Fluoranthene	50	50	U *
Pyrene	50	50	U *
Butylbenzylphthalate	50	50	U
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U *
Chrysene	50	50	U *
Bis(2-ethylhexyl)phthalate	50	50	U
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U *
Benzo(k)fluoranthene	50	50	U *
Benzo(a)pyrene	50	50	U *
Indeno(1,2,3-cd)pyrene	50	50	U *
Dibenzo(a,h)anthracene	50	50	U *
Benzo(g,h,i)perylene	50	50	U *
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml) : 1000

Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3DL		
STATION LOCATION		MW-18	
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	200	200	U *
Aniline	200	200	U *
Benzaldehyde	100	100	U *
Phenol	100	51	*
Bis(2-Chloroethyl)ether	100	100	U *
2-Chlorophenol	100	100	U *
2-Methylphenol	100	210	*
2,2'-Oxybis(1-chloropropane)	100	100	U *
Acetophenone	100	100	U *
4-Methylphenol	100	100	*
N-Nitroso-di-n-propylamine	100	100	U *
Hexachloroethane	100	100	U *
Nitrobenzene	100	100	U *
Isophorone	100	100	U *
2-Nitrophenol	100	100	U *
2,4-Dimethylphenol	100	500	
Bis(2-chloroethoxy)methane	100	100	U *
2,4-Dichlorophenol	100	100	U *
Naphthalene	100	110	*
4-Chloroaniline	100	100	U *
Hexachlorobutadiene	100	100	U *
Caprolactam	100	100	U *
4-Chloro-3-methylphenol	100	100	U *
2-Methylnaphthalene	100	31	*
Hexachlorocyclopentadiene	100	100	U *
2,4,6-Trichlorophenol	100	100	U *
2,4,5-Trichlorophenol	100	100	U *
1,1'-Biphenyl	100	100	U *
2-Chloronaphthalene	100	100	U *
2-Nitroaniline	200	200	U *
Dimethylphthalate	100	100	U *
2,6-Dinitrotoluene	100	100	U *
Acenaphthylene	100	100	U *
3-Nitroaniline	200	200	U *
Acenaphthene	100	100	U *
2,4-Dinitrophenol	200	200	U *
4-Nitrophenol	200	200	U *
Dibenzofuran	100	100	U *
2,4-Dinitrotoluene	100	100	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MP3DL		
STATION LOCATION		MW-18	
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	100	100	U *
Fluorene	100	100	U *
4-Chlorophenyl-phenylether	100	100	U *
4-Nitroaniline	200	200	U *
4,6-Dinitro-2-methylphenol	200	200	U *
N-Nitrosodiphenylamine	100	100	U *
1,2,4,5-Tetrachlorobenzene	100	100	U *
4-Bromophenyl-phenylether	100	100	U *
Hexachlorobenzene	100	100	U *
Atrazine	100	100	U *
Pentachlorophenol	200	200	U *
Phenanthrene	100	100	U *
Anthracene	100	100	U *
Carbazole	100	100	U *
Di-n-butylphthalate	100	100	U *
Fluoranthene	100	100	U *
Pyrene	100	100	U *
Butylbenzylphthalate	100	100	U *
3,3'-Dichlorobenzidine	100	100	U *
Benzo(a)anthracene	100	100	U *
Chrysene	100	100	U *
Bis(2-ethylhexyl)phthalate	100	100	U *
Di-n-octylphthalate	100	100	U *
Benzo(b)fluoranthene	100	100	U *
Benzo(k)fluoranthene	100	100	U *
Benzo(a)pyrene	100	100	U *
Indeno(1,2,3-cd)pyrene	100	100	U *
Dibenzo(a,h)anthracene	100	100	U *
Benzo(g,h,i)perylene	100	100	U *
2,3,4,6-Tetrachlorophenol	100	100	U *

Volume (ml) : 1000

Dilution Factor : 20

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3 (SIM)		
STATION LOCATION	MW-18		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	1.0	43	*
2-Methylnaphthalene	1.0	25	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U
Fluorene	1.0	1.0	U
Pentachlorophenol	2.0	2.0	U
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	U
Fluoranthene	1.0	1.0	U
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	U
Chrysene	1.0	1.0	U
Benzo(b)fluoranthene	1.0	1.0	U
Benzo(k)fluoranthene	1.0	1.0	U
Benzo(a)pyrene	1.0	1.0	U
Indeno(1,2,3-cd)pyrene	1.0	1.0	U
Dibenzo(a,h)anthracene	1.0	1.0	U
Benzo(g,h,i)perylene	1.0	1.0	U

Volume (ml) : 1000
Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3DL (SIM)		
STATION LOCATION	MW-18		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	20	130	*
2-Methylnaphthalene	20	54	*
Acenaphthylene	20	20	U *
Acenaphthene	20	20	U *
Fluorene	20	20	U *
Pentachlorophenol	40	40	U *
Phenanthrene	20	20	U *
Anthracene	20	20	U *
Fluoranthene	20	20	U *
Pyrene	20	20	U *
Benzo(a)anthracene	20	20	U *
Chrysene	20	20	U *
Benzo(b)fluoranthene	20	20	U *
Benzo(k)fluoranthene	20	20	U *
Benzo(a)pyrene	20	20	U *
Indeno(1,2,3-cd)pyrene	20	20	U *
Dibenzo(a,h)anthracene	20	20	U *
Benzo(g,h,i)perylene	20	20	U *

Volume (ml) : 1000
Dilution Factor : 200

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MP3RE (SIM)		
STATION LOCATION	MW-18		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	1.0	50	*
2-Methylnaphthalene	1.0	30	*
Acenaphthylene	1.0	1.0	U *
Acenaphthene	1.0	1.0	U *
Fluorene	1.0	1.0	U *
Pentachlorophenol	2.0	2.0	U *
Phenanthrene	1.0	1.0	U *
Anthracene	1.0	1.0	U *
Fluoranthene	1.0	1.0	U *
Pyrene	1.0	1.0	U *
Benzo(a)anthracene	1.0	1.0	U *
Chrysene	1.0	1.0	U *
Benzo(b)fluoranthene	1.0	1.0	U *
Benzo(k)fluoranthene	1.0	1.0	U *
Benzo(a)pyrene	1.0	1.0	U *
Indeno(1,2,3-cd)pyrene	1.0	1.0	U *
Dibenzo(a,h)anthracene	1.0	1.0	U *
Benzo(g,h,i)perylene	1.0	1.0	U *

Volume (ml) : 1000
 Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ4		
STATION LOCATION	MW-14-D		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	100	100	U
Aniline	100	100	U
Benzaldehyde	50	50	U
Phenol	50	1600	*
Bis(2-Chloroethyl)ether	50	50	U
2-Chlorophenol	50	50	U
2-Methylphenol	50	1600	*
2,2'-Oxybis(1-chloropropane)	50	50	U
Acetophenone	50	50	U
4-Methylphenol	50	1100	*
N-Nitroso-di-n-propylamine	50	50	U
Hexachloroethane	50	50	U
Nitrobenzene	50	50	U
Isophorone	50	50	U
2-Nitrophenol	50	50	U
2,4-Dimethylphenol	50	840	*
Bis(2-chloroethoxy)methane	50	50	U
2,4-Dichlorophenol	50	50	U
Naphthalene	50	320	
4-Chloroaniline	50	50	U
Hexachlorobutadiene	50	50	U
Caprolactam	50	50	U
4-Chloro-3-methylphenol	50	50	U
2-Methylnaphthalene	50	75	
Hexachlorocyclopentadiene	50	50	U
2,4,6-Trichlorophenol	50	50	U
2,4,5-Trichlorophenol	50	50	U
1,1'-Biphenyl	50	4.8	LJ
2-Chloronaphthalene	50	50	U
2-Nitroaniline	100	100	U
Dimethylphthalate	50	50	U
2,6-Dinitrotoluene	50	50	U
Acenaphthylene	50	50	U*
3-Nitroaniline	100	100	U
Acenaphthene	50	50	U*
2,4-Dinitrophenol	100	100	U
4-Nitrophenol	100	100	U
Dibenzofuran	50	50	U
2,4-Dinitrotoluene	50	50	U

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ4		
STATION LOCATION		MW-14-D	
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	50	50	U
Fluorene	50	50	U *
4-Chlorophenyl-phenylether	50	50	U
4-Nitroaniline	100	100	U
4,6-Dinitro-2-methylphenol	100	100	U
N-Nitrosodiphenylamine	50	50	U
1,2,4,5-Tetrachlorobenzene	50	50	U
4-Bromophenyl-phenylether	50	50	U
Hexachlorobenzene	50	50	U
Atrazine	50	50	U
Pentachlorophenol	100	100	U *
Phenanthrene	50	50	U *
Anthracene	50	50	U *
Carbazole	50	50	U
Di-n-butylphthalate	50	50	U
Fluoranthene	50	50	U *
Pyrene	50	50	U *
Butylbenzylphthalate	50	50	U
3,3'-Dichlorobenzidine	50	50	U
Benzo(a)anthracene	50	50	U *
Chrysene	50	50	U *
Bis(2-ethylhexyl)phthalate	50	50	U
Di-n-octylphthalate	50	50	U
Benzo(b)fluoranthene	50	50	U *
Benzo(k)fluoranthene	50	50	U *
Benzo(a)pyrene	50	50	U *
Indeno(1,2,3-cd)pyrene	50	50	U *
Dibenzo(a,h)anthracene	50	50	U *
Benzo(g,h,i)perylene	50	50	U *
2,3,4,6-Tetrachlorophenol	50	50	U

Volume (ml) : 1000
Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ4DL		
STATION LOCATION	MW-14-D		
Semivolatile	ADJ CRQL	RESULT	FLAG
3,3,5-trimethylcyclohexanone	500	500	U *
Aniline	500	500	U *
Benzaldehyde	250	250	U *
Phenol	250	1000	
Bis(2-Chloroethyl)ether	250	250	U *
2-Chlorophenol	250	250	U *
2-Methylphenol	250	1000	
2,2'-Oxybis(1-chloropropane)	250	250	U *
Acetophenone	250	250	U *
4-Methylphenol	250	700	
N-Nitroso-di-n-propylamine	250	250	U *
Hexachloroethane	250	250	U *
Nitrobenzene	250	250	U *
Isophorone	250	250	U *
2-Nitrophenol	250	250	U *
2,4-Dimethylphenol	250	530	
Bis(2-chloroethoxy)methane	250	250	U *
2,4-Dichlorophenol	250	250	U *
Naphthalene	250	210	*
4-Chloroaniline	250	250	U *
Hexachlorobutadiene	250	250	U *
Caprolactam	250	250	U *
4-Chloro-3-methylphenol	250	250	U *
2-Methylnaphthalene	250	52	*
Hexachlorocyclopentadiene	250	250	U *
2,4,6-Trichlorophenol	250	250	U *
2,4,5-Trichlorophenol	250	250	U *
1,1'-Biphenyl	250	250	U *
2-Chloronaphthalene	250	250	U *
2-Nitroaniline	500	500	U *
Dimethylphthalate	250	250	U *
2,6-Dinitrotoluene	250	250	U *
Acenaphthylene	250	250	U *
3-Nitroaniline	500	500	U *
Acenaphthene	250	250	U *
2,4-Dinitrophenol	500	500	U *
4-Nitrophenol	500	500	U *
Dibenzofuran	250	250	U *
2,4-Dinitrotoluene	250	250	U *

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ4DL		
STATION LOCATION	MW-14-D		
Semivolatile	ADJ CRQL	RESULT	FLAG
Diethylphthalate	250	250	U *
Fluorene	250	250	U *
4-Chlorophenyl-phenylether	250	250	U *
4-Nitroaniline	500	500	U *
4,6-Dinitro-2-methylphenol	500	500	U *
N-Nitrosodiphenylamine	250	250	U *
1,2,4,5-Tetrachlorobenzene	250	250	U *
4-Bromophenyl-phenylether	250	250	U *
Hexachlorobenzene	250	250	U *
Atrazine	250	250	U *
Pentachlorophenol	500	500	U *
Phenanthrene	250	250	U *
Anthracene	250	250	U *
Carbazole	250	250	U *
Di-n-butylphthalate	250	250	U *
Fluoranthene	250	250	U *
Pyrene	250	250	U *
Butylbenzylphthalate	250	250	U *
3,3'-Dichlorobenzidine	250	250	U *
Benzo(a)anthracene	250	250	U *
Chrysene	250	250	U *
Bis(2-ethylhexyl)phthalate	250	250	U *
Di-n-octylphthalate	250	250	U *
Benzo(b)fluoranthene	250	250	U *
Benzo(k)fluoranthene	250	250	U *
Benzo(a)pyrene	250	250	U *
Indeno(1,2,3-cd)pyrene	250	250	U *
Dibenzo(a,h)anthracene	250	250	U *
Benzo(g,h,i)perylene	250	250	U *
2,3,4,6-Tetrachlorophenol	250	250	U *

Volume (ml) : 1000
Dilution Factor : 50

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : F5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	F5MQ4 (SIM)		
STATION LOCATION	MW-14-D		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	1.0	150	*
2-Methylnaphthalene	1.0	20	*
Acenaphthylene	1.0	1.0	U
Acenaphthene	1.0	1.0	U
Fluorene	1.0	1.0	U
Pentachlorophenol	2.0	2.0	U
Phenanthrene	1.0	1.0	U
Anthracene	1.0	1.0	U
Fluoranthene	1.0	1.0	U
Pyrene	1.0	1.0	U
Benzo(a)anthracene	1.0	1.0	U
Chrysene	1.0	1.0	U
Benzo(b)fluoranthene	1.0	1.0	U
Benzo(k)fluoranthene	1.0	1.0	U
Benzo(a)pyrene	1.0	1.0	U
Indeno(1,2,3-cd)pyrene	1.0	1.0	U
Dibenzo(a,h)anthracene	1.0	1.0	U
Benzo(g,h,i)perylene	1.0	1.0	U

Volume (ml) : 1000

Dilution Factor : 10

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498 SDG : F5MP0 Reviewer : T. Fan
 Laboratory : A4 Matrix : Water Units : ug/L

EPA SAMPLE No.	F5MQ4DL (SIM)		
STATION LOCATION	MW-14-D		
Semivolatile	ADJ CRQL	RESULT	FLAG
Naphthalene	40	250	*
2-Methylnaphthalene	40	68	*
Acenaphthylene	40	40	U *
Acenaphthene	40	40	U *
Fluorene	40	40	U *
Pentachlorophenol	80	80	U *
Phenanthrene	40	40	U *
Anthracene	40	40	U *
Fluoranthene	40	40	U *
Pyrene	40	40	U *
Benzo(a)anthracene	40	40	U *
Chrysene	40	40	U *
Benzo(b)fluoranthene	40	40	U *
Benzo(k)fluoranthene	40	40	U *
Benzo(a)pyrene	40	40	U *
Indeno(1,2,3-cd)pyrene	40	40	U *
Dibenzo(a,h)anthracene	40	40	U *
Benzo(g,h,i)perylene	40	40	U *

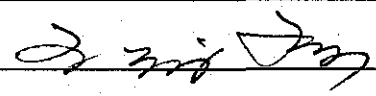
Volume (ml) : 1000
 Dilution Factor : 400

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Organic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.
 Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. 42498 SDG No. F5MP0 SDG Nos. To Follow Mod. Ref No. 1359.6 & 1859.1 Date Rec. 6/1/12

EPA Lab ID: <u>A4</u> Lab Location: <u>The Woodlands, TX</u> Region: <u>6</u> Audit No.: <u>42498/F5MP0</u> Re_Submitted CSF? Yes No <u>X</u> Box No(s): <u>1</u> COMMENTS: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">Item</th> <th style="width: 90%;">Description</th> </tr> </thead> <tbody> <tr> <td>9, 10</td> <td>One COC Record was not signed/dated by laboratory personnel. The laboratory was contacted for resolution.</td> </tr> <tr> <td>Others</td> <td>The airbill number reported on the Form DC-1 on p. 1733 was illegible, and the auditor made the necessary correction.</td> </tr> </tbody> </table> Over for additional comments.	Item	Description	9, 10	One COC Record was not signed/dated by laboratory personnel. The laboratory was contacted for resolution.	Others	The airbill number reported on the Form DC-1 on p. 1733 was illegible, and the auditor made the necessary correction.	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 80%;">ORIGINALS</th> <th style="width: 10%;">YES</th> <th style="width: 10%;">NO</th> <th style="width: 10%;">N/A</th> </tr> </thead> <tbody> <tr> <td colspan="4">CUSTODY SEALS</td> </tr> <tr> <td>1. Present on package?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>2. Intact upon receipt?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td colspan="4">FORM DC-2</td> </tr> <tr> <td>3. Numbering scheme accurate?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>4. Are enclosed documents listed?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>5. Are listed documents enclosed?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td colspan="4">FORM DC-1</td> </tr> <tr> <td>6. Present?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>7. Complete?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>8. Accurate?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td colspan="4">TRAFFIC REPORT /CHAIN-OF-CUSTODY RECORD(s)</td> </tr> <tr> <td>9. Signed?</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td>10. Dated?</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td colspan="4">AIRBILLS/AIRBILL STICKER</td> </tr> <tr> <td>11. Present?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>12. Signed?</td> <td></td> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td>13. Dated?</td> <td></td> <td></td> <td style="text-align: center;">X</td> </tr> <tr> <td colspan="4">SAMPLE TAGS</td> </tr> <tr> <td>14. Does DC-1 list tags as being included?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>15. Present?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td colspan="4">OTHER DOCUMENTS</td> </tr> <tr> <td>16. Complete?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>17. Legible?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> <tr> <td>18. Original?</td> <td></td> <td style="text-align: center;">X</td> <td></td> </tr> <tr> <td>18a. If "NO", does the copy indicate where original documents are located?</td> <td style="text-align: center;">X</td> <td></td> <td></td> </tr> </tbody> </table>	ORIGINALS	YES	NO	N/A	CUSTODY SEALS				1. Present on package?	X			2. Intact upon receipt?	X			FORM DC-2				3. Numbering scheme accurate?	X			4. Are enclosed documents listed?	X			5. Are listed documents enclosed?	X			FORM DC-1				6. Present?	X			7. Complete?	X			8. Accurate?	X			TRAFFIC REPORT /CHAIN-OF-CUSTODY RECORD(s)				9. Signed?		X		10. Dated?		X		AIRBILLS/AIRBILL STICKER				11. Present?	X			12. Signed?			X	13. Dated?			X	SAMPLE TAGS				14. Does DC-1 list tags as being included?	X			15. Present?	X			OTHER DOCUMENTS				16. Complete?	X			17. Legible?	X			18. Original?		X		18a. If "NO", does the copy indicate where original documents are located?	X		
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Audited by: 
 Audited by: _____
Signature

Tseng-Ying Fan / ESAT Data Reviewer

Printed Name/Title

Date 7/12/12
 Date _____

DC-2

In Reference To Case No(s):
42498 SDG: F5MP0 (O-0882)

**Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM
Resubmission Request**

Laboratory Name:	A4
Lab Contact:	Laxmi Teerupalli
Region:	6
Regional Contact:	Raymond Flores - EPA
ESAT Reviewer:	Tseng-Ying Fan - ESAT

In reference to data for the following fraction(s):

CSF Deliverables TVOA BNA BNA-SIM

Summary of Questions/Issues:

A. CSF Deliverables

The Sample Custodian did not sign/date the COC Record associated with BNA sample F5MQ4 (p. 24). Please submit a signed and dated copy.

B. TVOA

1. TCL compound 1,2,4-trichlorobenzene was omitted from the IC quantitation reports on pp. 699 and 706. Please resubmit these pages to report the missing data.
2. Sample F5MP6:
 - (a) The reported target compounds had RTs almost identical to those in the associated CCV except for tert-butylbenzene. The spectra for tert-butylbenzene also did not appear to meet the relative intensity criteria for identification. Please provide a better spectrum or reconsider the identification of this compound.
 - (b) The elution order for DMCs benzene-d6 and 1,2-dichloroethane-d4 was reversed compared to the associated opening CCV. Please double check the identification for these DMCs and make the necessary correction and resubmission.
3. Sample F5MP8: The reported target compounds had almost identical RTs to those in the associated CCV except for 1,2,4-trimethylbenzene. Please double check the ID for this analyte. Correct and resubmit data and reporting form as needed.

Resubmission Request

Continuation Page: 2

Laboratory/Contact: A4/ Laxmi Teerupalli

In Reference to Case No.: 42498 SDG: F5MP0

C. BNA

Modified Analysis Request 1859.1 requires that the laboratory select the appropriate ISS and DMCs to be associated with the two MA target compounds and document the selections in the SDG Narrative. Please comply with this requirement and resubmit the SDG Narrative.

D. BNA-SIM

Form 2 (p. 1485): The DMC recoveries for SDMC18 were erroneously reported under the column for SDMC17, and vice versa. Please correct and resubmit this Form 2.

NOTE: Any laboratory resubmission should be submitted either as an addendum to the original CSF with a revised Form DC-2 or submitted as a new CSF with a new Form DC-2 except for replacement pages (SOM01.2, p. B-33, sec. 2.6.3). Custody seals are required for all such shipments.

Please respond to the above items **within 7 days** by e-mail to Flores.Raymond@epa.gov and by regular mail to:

Mr. Raymond Flores
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx

AirbillNo: 7983 6077 0990

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-151441-0009

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474000 (HCL pH<2), 6-474001 (HCL pH<2), 6-474002 (HCL pH<2), 6-474003 (HCL pH<2), 6-474004 (HCL pH<2), 6-474005 (HCL pH<2) (6)	MW-14	05/10/2012 09:05	MF5MP0	Field Sample
F5MP1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474016 (HCL pH<2), 6-474017 (HCL pH<2), 6-474018 (HCL pH<2), 6-474019 (HCL pH<2), 6-474020 (HCL pH<2), 6-474021 (HCL pH<2) (6)	MW-16	05/10/2012 07:35	MF5MP1	Field Sample
F5MP2	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474028 (HCL pH<2), 6-474029 (HCL pH<2), 6-474030 (HCL pH<2), 6-474031 (HCL pH<2), 6-474032 (HCL pH<2), 6-474033 (HCL pH<2) (6)	MW-17	05/10/2012 12:19	MF5MP2	Field Sample
F5MP3	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474039 (HCL pH<2), 6-474040 (HCL pH<2), 6-474041 (HCL pH<2), 6-474042 (HCL pH<2), 6-474043 (HCL pH<2), 6-474044 (HCL pH<2) (6)	MW-18	05/09/2012 17:37	MF5MP3	Field Sample

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	<i>[Signature]</i>	5-10-2012									

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Date Shipped: 5/10/2012

Carrier Name: FedEx

Airbill No: 7983 6077 0990

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-151441-0009

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

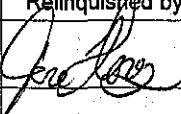
Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP6	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474062 (HCL pH<2), 6-474063 (HCL pH<2), 6-474064 (HCL pH<2), 6-474065 (HCL pH<2), 6-474066 (HCL pH<2), 6-474067 (HCL pH<2) (6)	MW-19	05/10/2012 11:20		Field Sample
F5MP9	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474080 (HCL pH<2), 6-474081 (HCL pH<2), 6-474082 (HCL pH<2), 6-474083 (HCL pH<2), 6-474084 (HCL pH<2), 6-474085 (HCL pH<2) (6)	MW-22	05/09/2012 16:28		Field Sample
F5MQ6	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474134 (HCL pH<2), 6-474135 (HCL pH<2), 6-474136 (HCL pH<2), 6-474137 (HCL pH<2), 6-474138 (HCL pH<2), 6-474139 (HCL pH<2) (6)	TB-2	05/09/2012 21:30		Trip Blank
F5MQ8	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474146 (HCL pH<2), 6-474147 (HCL pH<2), 6-474148 (HCL pH<2), 6-474149 (HCL pH<2), 6-474150 (HCL pH<2), 6-474151 (HCL pH<2) (6)	FB-2	05/10/2012 07:36		Field Blank

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
		5-10-12									

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USEPA CLP Organics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx

AirbillNo: 7983 6076 6288

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-050912-222243-0001

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MP4	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474050 (HCL pH<2), 6-474051 (HCL pH<2), 6-474052 (HCL pH<2), 6-474053 (HCL pH<2), 6-474054 (HCL pH<2), 6-474055 (HCL pH<2) (6)	MW-4	05/09/2012 10:47		Field Sample
F5MP5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474056 (HCL pH<2), 6-474057 (HCL pH<2), 6-474058 (HCL pH<2), 6-474059 (HCL pH<2), 6-474060 (HCL pH<2), 6-474061 (HCL pH<2) (6)	MW-9	05/09/2012 14:12		Field Sample
F5MP7	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474068 (HCL pH<2), 6-474069 (HCL pH<2), 6-474070 (HCL pH<2), 6-474071 (HCL pH<2), 6-474072 (HCL pH<2), 6-474073 (HCL pH<2) (6)	MW-20	05/09/2012 12:02		Field Sample
F5MP8	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474074 (HCL pH<2), 6-474075 (HCL pH<2), 6-474076 (HCL pH<2), 6-474077 (HCL pH<2), 6-474078 (HCL pH<2), 6-474079 (HCL pH<2) (6)	MW-21	05/09/2012 15:20		Field Sample

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	<i>Jose Flores</i>	5/10/12									

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USEPA CLP Organics COC (REGION COPY)

Date Shipped: 5/10/2012

Carrier Name: FedEx

Airbill No: 7983 6076 6288

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-050912-222243-0001

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Organic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Inorganic Sample #	Sample Type
F5MQ0	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474086 (HCL pH<2), 6-474087 (HCL pH<2), 6-474088 (HCL pH<2), 6-474089 (HCL pH<2), 6-474090 (HCL pH<2), 6-474091 (HCL pH<2) (6)	MW-21-D	05/09/2012 15:20		Field Duplicate
F5MQ1	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474092 (HCL pH<2), 6-474093 (HCL pH<2), 6-474094 (HCL pH<2), 6-474095 (HCL pH<2), 6-474096 (HCL pH<2), 6-474097 (HCL pH<2) (6)	MW-4-D	05/09/2012 10:47		Field Duplicate
F5MQ5	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474128 (HCL pH<2), 6-474129 (HCL pH<2), 6-474130 (HCL pH<2), 6-474131 (HCL pH<2), 6-474132 (HCL pH<2), 6-474133 (HCL pH<2) (6)	TB-1	05/09/2012 07:30		Trip Blank
F5MQ7	Water/ Jose Flores	Grab	TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21), TVOA/T-SIM(21)	6-474140 (HCL pH<2), 6-474141 (HCL pH<2), 6-474142 (HCL pH<2), 6-474143 (HCL pH<2), 6-474144 (HCL pH<2), 6-474145 (HCL pH<2) (6)	FB-1	05/09/2012 16:22		Field Blank

Special Instructions: TVOA+TVOASIM SOM01.2+MA#1359.6

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TVOA/T-SIM=TVOA-MA#1359.6+TVOASIM-SOM01.2

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	<i>[Signature]</i>	5/10/12									

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AirbillNo: 7935 3008 5105

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-172143-0012

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1

Shipment for Case Complete? Y**Samples Transferred From Chain of Custody #**

Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2

[illegible]

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AirbillNo: 7935 3009 0858

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-172816-0013

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1	Shipment for Case Complete? Y
	Samples Transferred From Chain of Custody #
Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2	

[illegible]

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AirbillNo: 7935 3008 3422

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-171208-0011

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #	
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100	100

Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2

[illegible]

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AirbillNo: 7983 6076 7836

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-050912-223702-0002

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1

Shipment for Case Complete? Y**Samples Transferred From Chain of Custody #**

Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2

Items/Reason	Relinquished by	Date	Received by	Date	Time
	Juan Lopez	5-10-12			

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AirbillNo: 7935 3027 3107

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-051012-163408-0010

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

[illegible]

Special Instructions: SV/SVSIM SOM01.2+MA# 1859.1

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: SV/SVSIM=SV/SVSIM-MA#1859.1-SOM01.2

[illegible]

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R&H OIL/TROPICANA ENERGY SITE
GROUND WATER ANALYTE LIST – VOCs

VOLATILE ORGANIC COMPOUNDS (VOCs)				
Constituent	Extent Evaluation Comparison			Value
	mg/L	mg/L	µg/L	
✓ 1,2-Dibromo-3-chloropropane	2.00E-04	0.00020	0.20	
✓ 1,2-Dibromoethane	5.00E-05	0.00005	0.05	
✓ 1,2-Dichlorobenzene	6.00E-01	0.60000	600.00	
✓ 1,2-Dichloroethane	5.00E-03	0.00500	5.00	
✓ 1,2-Dichloropropane	5.00E-03	0.00500	5.00	
MA ✓ 1,3,5-Trimethylbenzene	2.50E-02	0.02500	25.00	
✓ 1,3-Dichlorobenzene	7.30E-01	0.73000	730.00	
MA ✓ 1,3-Dichloropropane <i>in 5 days</i>	9.10E-03	0.00910	9.10	
✓ 1,4-Dichlorobenzene	7.50E-02	0.07500	75.00	
MA ✓ 2,2-Dichloropropane	1.30E-02	0.01300	13.00	
✓ 2-Butanone	1.50E+01	15.00000	15000.00	
MA ✓ 2-Chlorotoluene	4.90E-01	0.49000	490.00	
✓ 2-Hexanone	1.20E-01	0.12000	120.00	
MA ✓ 4-Chlorotoluene	1.70E+00	1.70000	1700.00	
✓ 4-Methyl-2-pentanone	2.00E+00	2.00000	2000.00	
✓ Acetone	2.20E+01	22.00000	22000.00	
✓ Benzene	5.00E-03	0.00500	5.00	
MA ✓ Bromobenzene	2.00E-01	0.20000	200.00	
✓ Bromodichloromethane	2.10E-03	0.00210	2.10	
✓ Bromoform	1.20E-01	0.12000	120.00	
✓ Bromomethane	2.00E-02	0.02000	20.00	
✓ Carbon disulfide	5.60E-01	0.56000	560.00	
✓ Carbon tetrachloride	5.00E-03	0.00500	5.00	
✓ Chlorobenzene	1.00E-01	0.10000	100.00	
✓ Chloroethane	9.80E+00	9.80000	9800.00	

VOLATILE ORGANIC COMPOUNDS (VOCs)			
Constituent	Extent Evaluation Comparison Value		
	mg/L	mg/L	ug/L
✓ Chloroform	8.00E-02	0.08000	80.00
✓ Chloromethane	6.70E-03	0.00670	6.70
✓ cis-1,2-Dichloroethene	7.00E-02	0.07000	70.00
✓ cis-1,3-Dichloropropene	1.70E-03	0.00170	1.70
✓ Dibromochloromethane (chlorodibromomethane)	3.20E-03	0.00320	3.20
MA Dibromomethane	1.20E-01	0.12000	120.00
✓ Dichlorodifluoromethane	1.40E-02	0.01400	14.00
✓ Ethylbenzene	7.00E-01	0.70000	700.00
SVOC Hexachlorobutadiene	3.30E-04	0.00033	0.33
✓ Isopropylbenzene (Cumene)	8.40E-03	0.00840	8.40
→ NO Methyl iodide (iodomethane)	3.40E-02	0.03400	34.00
✓ Methylene chloride	5.00E-03	0.00500	5.00
SVOC Naphthalene	1.50E-01	0.15000	150.00
MA n-Butylbenzene	2.60E-01	0.26000	260.00
MA n-Propylbenzene	3.20E-01	0.32000	320.00
MA p-Isopropyltoluene	2.40E+00	2.40000	2400.00
MA sec-Butylbenzene	2.50E-01	0.25000	250.00
✓ Styrene	1.00E-01	0.10000	100.00
✓ tert-Butyl methyl ether (MTBE)	2.40E-01	0.24000	240.00
MA tert-Butylbenzene	2.90E-01	0.29000	290.00
✓ Tetrachloroethene	5.00E-03	0.00500	5.00
✓ Toluene	1.00E+00	1.00000	1000.00
✓ trans-1,2-Dichloroethene	1.00E-01	0.10000	100.00
✓ trans-1,3-Dichloropropene	9.10E-03	0.00910	9.10
✓ Trichloroethene	5.00E-03	0.00500	5.00
✓ Trichlorofluoromethane	1.80E-01	0.18000	180.00
✓ Vinyl chloride	2.00E-03	0.00200	2.00
✓ Xylenes (total)	1.00E+01	10.00000	10000.00

SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)				
Constituent		Extent Evaluation Comparison Value		
		mg/L	mg/L	µg/L
✓	Benzo(a)anthracene	1.30E-03	0.00130	1.30
✓	Benzo(a)pyrene	2.00E-04	0.00020	0.20
✓	Benzo(b)fluoranthene	1.30E-03	0.00130	1.30
✓	Benzo(g,h,i)perylene	7.30E-01	0.73000	730.00
✓	Benzo(k)fluoranthene	1.30E-02	0.01300	13.00
→ No	Benzy alcohol	2.40E+00	2.40000	2400.00
✓	Bis(2-Chloroethoxy)methane	8.30E-04	0.00083	0.83
✓	Bis(2-Chloroethyl)ether	8.30E-04	0.00083	0.83
✓	Bis(2-Chloroisopropyl)ether ⁷	1.30E-02	0.01300	13.00
✓	Bis(2-Ethylhexyl)phthalate	6.00E-03	0.00600	6.00
✓	Butyl benzyl phthalate	4.80E-01	0.48000	480.00
✓	Chrysene	1.30E-01	0.13000	130.00
✓	Dibenz(a,h)anthracene	2.00E-04	0.00020	0.20
✓	Dibenzofuran	9.80E-02	0.09800	98.00
✓	Diethyl phthalate	2.00E+01	20.00000	20000.00
✓	Dimethyl phthalate	2.00E+01	20.00000	20000.00
✓	Di-n-butyl phthalate	2.40E+00	2.40000	2400.00
✓	Di-n-octyl phthalate	4.90E-01	0.49000	490.00
✓	Fluoranthene	9.80E-01	0.98000	980.00
✓	Fluorene	9.80E-01	0.98000	980.00
✓	Hexachlorobenzene	1.00E-03	0.00100	1.00
✓	Hexachlorocyclopentadiene	5.00E-02	0.05000	50.00
✓	Hexachloroethane	3.80E-03	0.00380	3.80
✓	Indeno(1,2,3-cd)pyrene	1.30E-03	0.00130	1.30
✓	Isophorone	9.60E-01	0.96000	960.00
✓	Nitrobenzene	4.90E-02	0.04900	49.00
✓	n-Nitrosodi-n-propylamine	1.30E-04	0.00013	0.13
✓	Pentachlorophenol	1.00E-03	0.00100	1.00
✓	Phenanthrene	7.30E-01	0.73000	730.00
✓	Phenol	7.30E+00	7.30000	7300.00
✓	Pyrene	7.30E-01	0.73000	730.00

R&H OIL/TROPICANA ENERGY SITE
GROUND WATER ANALYTE LIST – SVOCs

SEMI-VOLATILE ORGANIC COMPOUNDS (SVOCs)			
Constituent	Extent Evaluation Comparison Value		
	mg/L	mg/L	µg/L
✓ 2,4,5-Trichlorophenol	2.40E+00	2.40000	2400.00
✓ 2,4,6-Trichlorophenol	2.40E-02	0.02400	24.00
✓ 2,4-Dichlorophenol	7.30E-02	0.07300	73.00
✓ 2,4-Dimethylphenol	4.90E-01	0.49000	490.00
✓ 2,4-Dinitrophenol	4.90E-02	0.04900	49.00
✓ 2,4-Dinitrotoluene	1.30E-03	0.00130	1.30
✓ 2,6-Dinitrotoluene	1.30E-03	0.00130	1.30
✓ 2-Chloronaphthalene	2.00E+00	2.00000	2000.00
✓ 2-Chlorophenol	1.20E-01	0.12000	120.00
✓ 2-Methylnaphthalene	9.80E-02	0.09800	98.00
✓ 2-Nitroaniline	7.30E-03	0.00730	7.30
✓ 2-Nitrophenol	4.90E-02	0.04900	49.00
✓ 3,3'-Dichlorobenzidine	2.00E-03	0.00200	2.00
✓ 3-Nitroaniline	7.30E-03	0.00730	7.30
✓ 4,6-Dinitro-2-methylphenol	2.40E-03	0.00240	2.40
✓ 4-Bromophenyl phenyl ether	6.10E-05	0.00006	0.06
✓ 4-Chloro-3-methylphenol	1.20E-01	0.12000	120.00
✓ 4-Chloroaniline	4.60E-03	0.00460	4.60
✓ 4-Chlorophenyl phenyl ether	6.10E-05	0.00006	0.06
✓ Cresol, p- (4-methylphenol)	1.20E-01	0.12000	120.00
✓ 4-Nitroaniline	4.60E-02	0.04600	46.00
✓ 4-Nitrophenol	4.90E-02	0.04900	49.00
✓ Acenaphthene	1.50E+00	1.50000	1500.00
✓ Acenaphthylene	1.50E+00	1.50000	1500.00
by mt ✓ Aniline	1.60E-01	0.16000	160.00
✓ Anthracene	7.30E+00	7.30000	7300.00



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

July 18, 2012

MEMORANDUM

SUBJECT: Contract Laboratory Program Data Review
FROM: *Raymond Flores*
Raymond Flores, Alternate ESAT Regional Project Officer
Environmental Services Branch (6MD-HL)
TO: Chris Villarreal, Superfund Project Manager (6SF-RA)

Site: R&H OIL/TROPICANA
Case#: 42498
SDG#: MF5MP0

The EPA Region 6 Environmental Services Branch ESAT data review team has completed a review of the submitted Contract Laboratory Program (CLP) data package for the referenced site. The samples analyzed and reviewed are detailed in the attached Regional data review report.

The data package is acceptable for regional use. Problems, if any, are listed in the report narrative. If you have any questions regarding the data review report, please contact me at (281) 983-2139.

ENVIRONMENTAL SERVICES ASSISTANCE TEAM

ESAT Region 6
10625 Fallstone Road
Houston, TX 77099

Alion Science and Technology

MEMORANDUM

DATE: July 16, 2012
TO: Marvelyn Humphrey, ESAT PO, Region 6 EPA
FROM: Tseng-Ying Fan, Data Reviewer, ESAT *J*
THRU: Dominic G. Jarecki, ESAT Program Manager, ESAT *067*
SUBJECT: CLP Data Review

Contract No.:	EP-W-06-030
TO No.:	030
Task/Sub-Task:	2-12
ESAT Doc. No.:	B030-212-0045
TDF No.:	6-12-369B
ESAT File No.:	I-0537

Attached is the data review summary for Case # 42498

SDG # MF5MP0

Site R & H Oil/Tropicana

COMMENTS:

I. LEVEL OF DATA REVIEW

Region 6 Standard Review was performed for this data package.

II. CONTRACTUAL ASSESSMENT OF THE DATA PACKAGE

The CCS and hardcopy review found the data package contractually compliant.

III. TECHNICAL USABILITY ASSESSMENT OF THE DATA PACKAGE

All results are acceptable.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE ROAD
HOUSTON, TEXAS 77099

INORGANIC REGIONAL DATA ASSESSMENT

CASE NO.	42498	SITE	R & H Oil/Tropicana
LABORATORY	A4	NO. OF SAMPLES	5
CONTRACT#	EP-W-09-035	MATRIX	Water
SDG#	MF5MP0	REVIEWER (IF NOT ESB)	ESAT
SOW#	ISM01.3	REVIEWER'S NAME	Tseng-Ying Fan
SF#	303DD2MB	COMPLETION DATE	July 16, 2012

SAMPLE NO.	MF5MP0	MF5MP4			
	MF5MP1				
	MF5MP2				
	MF5MP3				

DATA ASSESSMENT SUMMARY

	ICP	HG
1. HOLDING TIMES	<u>O</u>	<u>O</u>
2. CALIBRATIONS	<u>O</u>	<u>O</u>
3. BLANKS	<u>O</u>	<u>O</u>
4. MATRIX SPIKES	<u>O</u>	<u>O</u>
5. DUPLICATE ANALYSIS	<u>O</u>	<u>O</u>
6. ICP QC	<u>O</u>	
7. LCS	<u>O</u>	
8. SAMPLE VERIFICATION	<u>O</u>	<u>O</u>
9. OTHER QC	<u>N/A</u>	<u>N/A</u>
10. OVERALL ASSESSMENT	<u>O</u>	<u>O</u>

O = Data had no problems.

M = Data qualified due to major or minor problems.

Z = Data unacceptable.

NA = Not applicable.

ACTION ITEMS:

AREAS OF CONCERN:

**COMMENTS/CLARIFICATIONS
REGION 6 CLP QA REVIEW**

CASE 42498 SDG MF5MP0 SITE R & H Oil/Tropicana LAB A4

COMMENTS: This SDG consisted of five water samples for total metals (by ICP-MS and ICP-AES) and mercury analyses following CLP SOW ISM01.3. The sampler designated sample MF5MP1 as the laboratory QC sample.

Region 6 Standard Review was performed for this package as requested by the TDF. The analytes of concern and the corresponding action levels are listed on page 14 of this report. Analytes of concern arsenic, cobalt, and/or manganese were reported at concentrations over the action levels in the samples. Samples MF5MP0, MF5MP1, and MF5MP4 were diluted 2X and reanalyzed because of high manganese concentrations. Sample MF5MP3 was diluted 5X and reanalyzed because of a high sodium concentration.

DATA ASSESSMENT: The QC problem affecting data usability is addressed below.

Because of laboratory blank readings, the antimony result <CRQL for sample MF5MP3 should be considered undetected and was flagged "U" at the CRQL on the DST.

OVERALL ASSESSMENT: All results are acceptable. ESAT's final data qualifiers in the DST indicate the technical usability of all reported sample results. An Evidence Audit was conducted for the CSF, and the audit results were reported on the Evidence Inventory Checklist.

The laboratory was contacted for three reporting issues (see Resubmission Request). The laboratory resubmission will not affect the DST, so the DST included in this report is the final version.

INORGANIC ACRONYMS

CADRE	Computer-Aided Data Review and Evaluation
CCB	Continuing Calibration Blank
CCS	Contract Compliance Screening
CCV	Continuing Calibration Verification
CN	Cyanide
CRQL	Contract Required Quantitation Limit
CSF	Complete SDG File
DST	Data Summary Table
HG	Mercury
ICB	Initial Calibration Blank
ICP	Inductively Coupled Plasma
ICP-AES	Inductively Coupled Plasma-Atomic Emission Spectroscopy
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
ICS	Interference Check Sample
ICV	Initial Calibration Verification
IS	Internal Standard
LCS	Laboratory Control Sample
MDL	Method Detection Limit
NFG	National Functional Guidelines
PE	Performance Evaluation
%D	Percent Difference
%R	Percent Recovery
%RI	Percent Relative Intensity
%RSD	Percent Relative Standard Deviation
QA	Quality Assurance
QC	Quality Control
QL	Quantitation Limit
RPD	Relative Percent Difference
RSCC	Regional Sample Control Center
SDG	Sample Delivery Group
SMO	Sample Management Office
SOW	Statement of Work
SQL	Sample Quantitation Limit
TAL	Target Analyte List

INORGANIC DATA QUALIFIER DEFINITIONS

The following definitions provide brief explanations of the ESAT-Region 6 qualifiers assigned to results in the Data Summary Table.

- U** Not detected at reported quantitation limit.
- L** Reported concentration is between the MDL and the CRQL.
- J** Result is estimated because of outlying quality control parameters such as matrix spike, serial dilution, etc., or the result is below the CRQL.
- R** Result is unusable.
- F** A possibility of a false negative exists.
- UC** Reported concentration should be used as a raised quantitation limit because of blank effects and/or laboratory or field contamination.
- +** High biased. Actual concentration may be lower than the concentration reported.
- Low biased. Actual concentration may be higher than the concentration reported.
- W** The result should be used with caution. The result was reported on a dry weight basis although the sample did not conform to the EPA Office of Water definition of a soil sample because of its high water content (>70% moisture).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : MF5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	MF5MP0		
STATION LOCATION	MW-14		
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	22.3	
Arsenic	1.0	374	
Barium	10.0	443	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	120000	
Chromium	2.0	0.56	LJ
Cobalt	1.0	7.7	
Copper	2.0	0.64	LJ
Iron	100	13300	
Lead	1.0	8.8	
Magnesium	5000	14300	
Manganese	2.0	1130	
Mercury	0.20	0.044	LJ
Nickel	1.0	7.2	
Potassium	5000	1060	LJ
Selenium	5.0	17.4	
Silver	1.0	1.0	U
Sodium	5000	222000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	2.4	

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : MF5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	MF5MP1		
STATION LOCATION	MW-16		
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	2.0	U
Arsenic	1.0	176	
Barium	10.0	341	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	104000	
Chromium	2.0	0.50	LJ
Cobalt	1.0	1.2	
Copper	2.0	2.0	U
Iron	100	12500	
Lead	1.0	1.0	U
Magnesium	5000	11400	
Manganese	2.0	1140	
Mercury	0.20	0.054	LJ
Nickel	1.0	3.1	
Potassium	5000	1040	LJ
Selenium	5.0	9.4	
Silver	1.0	1.0	U
Sodium	5000	179000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	1.3	LJ

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : MF5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	MF5MP2		
STATION LOCATION	MW-17		
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	2.0	U
Arsenic	1.0	27.1	
Barium	10.0	114	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	119000	
Chromium	2.0	2.0	U
Cobalt	1.0	1.3	
Copper	2.0	2.0	U
Iron	100	1900	
Lead	1.0	0.27	LJ
Magnesium	5000	9090	
Manganese	1.0	496	
Mercury	0.20	0.10	LJ
Nickel	1.0	1.5	
Potassium	5000	1510	LJ
Selenium	5.0	1.2	LJ
Silver	1.0	1.0	U
Sodium	5000	65800	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	0.80	LJ

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : MF5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L

EPA SAMPLE No.	MF5MP3		
STATION LOCATION	MW-18		
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	2.0	U
Arsenic	1.0	148	
Barium	10.0	381	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	90800	
Chromium	2.0	0.55	LJ
Cobalt	1.0	2.8	
Copper	2.0	1.4	LJ
Iron	100	7710	
Lead	1.0	5.0	
Magnesium	5000	20000	
Manganese	1.0	930	
Mercury	0.20	0.036	LJ
Nickel	1.0	5.1	
Potassium	5000	1200	LJ
Selenium	5.0	12.8	
Silver	1.0	1.0	U
Sodium	25000	908000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	1.5	LJ

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

ORGANIC DATA SUMMARY

Case No. : 42498

SDG : MF5MP0

Reviewer : T. Fan

Laboratory : A4

Matrix : Water

Units : ug/L


EPA SAMPLE No.	MF5MP4		
STATION LOCATION	MW-14-D		
Analyte	ADJ CRQL	RESULT	FLAG
Aluminum	200	200	U
Antimony	2.0	20.8	
Arsenic	1.0	377	
Barium	10.0	422	
Beryllium	1.0	1.0	U
Cadmium	1.0	1.0	U
Calcium	5000	117000	
Chromium	2.0	0.52	LJ
Cobalt	1.0	7.8	
Copper	2.0	0.60	LJ
Iron	100	12700	
Lead	1.0	8.4	
Magnesium	5000	13900	
Manganese	2.0	1170	
Mercury	0.20	0.056	LJ
Nickel	1.0	7.4	
Potassium	5000	5000	U
Selenium	5.0	16.2	
Silver	1.0	1.0	U
Sodium	5000	217000	
Thallium	1.0	1.0	U
Vanadium	5.0	5.0	U
Zinc	2.0	2.7	

Note 1: For the results listed in the Data Summary Table, ESAT has replaced the laboratory assigned flags with ESAT Inorganic Data Qualifiers. The ESAT flags indicate the technical usability of the reported results.

Note 2: Adjusted CRQL is equal to SQL (sample-specific contract required quantitation limit).

INORGANIC/ORGANIC COMPLETE SDG FILE (CSF) INVENTORY CHECKLIST

Case No. <u>42498</u>	SDG No. <u>MF5MP0</u>	SDG Nos. To Follow	Mod. Ref. No.	Date Rec <u>06/01/12</u>
EPA Lab ID: <u>A4</u>	ORIGINALS			YES NO N/A
Lab location: <u>The Woodlands, TX</u>	CUSTODY SEALS			
Region: <u>6</u> Audit No.: <u>42498/MF5MP0</u>	1. Present on package?			X
Resubmitted CSF? Yes _____ No <u>X</u>	2. Intact upon receipt?			X
Box No(s): <u>1</u>	FORM DC-2			
COMMENTS:	3. Numbering scheme accurate?			X
	4. Are enclosed documents listed?			X
	5. Are listed documents enclosed?			X
	FORM DC-1			
	6. Present?			X
	7. Complete?			X
	8. Accurate?			X
	TRAFFIC REPORT/CHAIN-OF-CUSTODY RECORD(s)			
	9. Signed?			X
	10. Dated?			X
	AIRBILLS/AIRBILL STICKER			
	11. Present?			X
	12. Signed?			X
	13. Dated?			X
	SAMPLE TAGS			
	14. Does DC-1 list tags as being included?			X
	15. Present?			X
	OTHER DOCUMENTS			
16. Complete?			X	
17. Legible?			X	
18. Original?			X	
18a. If "NO", does the copy indicate where original documents are located?				X
Over for additional comments.				

Audited 
 Audited _____
 Signature

Tseng-Ying Fan/ESAT Data Reviewer

 Printed Name/Title

Date 07/12/12
 Date _____

DC-2_

In Reference To Case No(s):
42498 SDG: MF5MP0 (I-0537)

**Contract Laboratory Program
REGIONAL/LABORATORY COMMUNICATION SYSTEM**

Resubmission Request

Laboratory Name:	A4
Lab Contact:	Laxmi Teerupalli
Region:	6
Regional Contact:	Raymond Flores - EPA
ESAT Reviewer:	Tseng-Ying Fan - ESAT

In reference to data for the following fractions:

ICP-AES ICP-MS Mercury

Summary of Questions/Issues:

A. ICP-AES

Form 3s (pp. 36 & 37): The method code for all analytes should be "P". Please correct and resubmit these pages.

B. ICP-MS

The serial dilution results reported on the Form 8 on p. 49 were not corrected for the 5X dilution, causing the unnecessary "E"-flagging of the arsenic and barium results on this form and all Form 1s. The associated Form 13 (p. 68) also had an incorrect dilution factor for the serial dilution sample. Please correct and resubmit all affected forms.

C. Mercury

The ICB and many CCBs had negative mercury concentrations with absolute values greater than or equal to the MDL. However, instead of reporting the negative concentrations as required by the SOW (ISM01.3, p. B-27, sec. 3.4.4.2.8), the analyst reported non-detect results on the Form 3s. Please correct and resubmit the Form 3s (pp. 28 - 30).

NOTE: Any submitted laboratory resubmission should be clearly marked as "Additional Data" with a cover letter included describing what data is being delivered, which Case the data pertains, and who requested the data (ISM01.3, p. B-8, sec. 2.2.1). Custody seals are required for all such shipments. Please respond to the above item **within 6 business days (ISM01.3, p. B-8, sec. 2.2)** by e-mail to Flores.Raymond@epa.gov and by regular mail to:

Mr. Raymond Flores
U.S. EPA Region 6 Laboratory
10625 Fallstone Road
Houston, TX 77099

If you have any questions, please contact Mr. Flores at 281-983-2139.

Distribution: (1) Lab Copy, (2) Region Copy, and (3) ESAT Copy

USEPA CLP Inorganics COC (REGION COPY)

DateShipped: 5/10/2012

CarrierName: FedEx

AirbillNo: 7983 6057 4464

CHAIN OF CUSTODY RECORD

R & H Oil/Tropicana Energy Superfund Site

Case #: 42498

No: 6-050912-230237-0003

Lab: A4 Scientific

Lab Contact: Laxmi Teerupalli

Lab Phone: 281-292-5277

Inorganic Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	Organic Sample #	Sample Type
MF5MP0	Water/ Jose Flores	Grab	TM+HG(21)	6-474014 (HNO3 pH<2) (1)	MW-14	05/10/2012 09:05	F5MP0	Field Sample
MF5MP1	Water/ Jose Flores	Grab	TM+HG(21), TM+HG(21)	6-474026 (HNO3 pH<2), 6-474027 (HNO3 pH<2) (2)	MW-16	05/10/2012 07:35	F5MP1	Field Sample
MF5MP2	Water/ Jose Flores	Grab	TM+HG(21)	6-474038 (HNO3 pH<2) (1)	MW-17	05/10/2012 12:19	F5MP2	Field Sample
MF5MP3	Water/ Jose Flores	Grab	TM+HG(21)	6-474049 (HNO3 pH<2) (1)	MW-18	05/09/2012 17:37	F5MP3	Field Sample
MF5MP4	Water/ Jose Flores	Grab	TM+HG(21)	6-474015 (HNO3 pH<2) (1)	MW-14-D	05/10/2012 09:05		Field Duplicate

Sample(s) to be used for Lab QC: MF5MP1 - Special Instructions: Total metals+Hg by ISM01.3, ICP-AES+ICP-MS

ICP-MS for TM+Hg= Sb/As/Ba/Be/Cd/Cr/Co/Cu/Pb/Mn/Ni/Se/Ag/Ti/V/Zn

ICP-AES for TM= Al/Ca/Fe/Mg/K/Na

Shipment for Case Complete? Y

Samples Transferred From Chain of Custody #

Analysis Key: TM+HG=TM + Hg-ISM01.3,ICP-MS+ICP-AES

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
	<i>[Signature]</i>	5-10-12									

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R&H OIL/TROPICANA ENERGY SITE
GROUND WATER ANALYTE LIST – TOTAL METALS

TOTAL METALS			
Constituent	Extent Evaluation Comparison Value		
	mg/L	mg/L	µg/L
Aluminum	2.40E+01	24.00000	24000.00
Arsenic	1.00E-02	0.01000	10.00
Barium	2.00E+00	2.00000	2000.00
Chromium	1.00E-01	0.10000	100.00
Cobalt	7.30E-03	0.00730	7.30
Copper	1.30E+00	1.30000	1300.00
Lead	1.50E-02	0.01500	15.00
Manganese	1.10E+00	1.10000	1100.00
Mercury	6.80E-04	0.00068	0.68
Nickel	4.90E-01	0.49000	490.00
Selenium	5.00E-02	0.05000	50.00
Thallium	2.00E-03	0.00200	2.00
Vanadium	1.70E-03	0.00170	1.70
Zinc	7.30E+00	7.30000	7300.00